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Introduction

This manual contains descriptions of the OMNIC[®] and Atlas[™] commands and parameters you can use within the Visual Basic[®] projects you create to automate OMNIC software operations. The OMNIC DDE language provides all of the OMNIC software commands and parameters plus commands and parameters for performing additional operations.

Note Versions of OMNIC earlier than OMNIC 6.0 may not support all of the current commands and parameters.

The following list provides some general information about the OMNIC DDE command interface that you should know about when using the OMNIC DDE commands and parameters.

- The language is not case sensitive.
- Command arguments are separated by spaces. If an argument includes embedded spaces, the argument must be enclosed in double quotation marks.
- Setting parameters causes them to take effect immediately. However, it is illegal to set bench or collect parameters while data collection is in progress.
- The Invoke keyword may be used with any OMNIC DDE command that displays a window or dialog. It takes another OMNIC DDE command as its first argument. When the Invoke keyword prefaces a command, the interactive form of the command is invoked. When the macro is run, the macro pauses until the operator closes the window or dialog box. For more information, refer to the Invoke entry in the OMNIC DDE Commands section.

- If you want to pass long filenames that contain spaces to OMNIC, enclose the filenames in double quotation marks.
- An invisible DDE window is created when OMNIC is started. The main purpose of this window is to hold spectra that haven't been placed in a visible window. For example, when a new spectrum is collected, the result is a new spectrum that will belong to the invisible DDE window. This spectrum can then be displayed in a visible window with the Display command. Alternatively, it can be operated on in the DDE window without ever appearing on the screen if no OMNIC windows are open. For example, a sample can be collected and the height of a peak calculated without ever putting the sample in a visible window. The title of this window is InvisibleDDEWindow.

About this manual

This manual is divided into the following chapters:

- **Using OMNIC DDE Commands and Parameters**
Provides information about using the OMNIC and Atlus DDE commands and parameters.
- **OMNIC DDE Commands**
Provides detailed descriptions of each OMNIC DDE command.
- **OMNIC DDE Parameter Groups**
Provides detailed descriptions of each OMNIC DDE parameter group.
- **Atlus DDE Commands**
Provides detailed descriptions of each Atlus DDE command.

Additional sources of information

Additional information about using DDE commands and parameters is available in the *Macros\Pro™ User's Guide* and the Macros\Pro on-line help system (which contains the same command and parameter descriptions found in this manual). To use the Macros\Pro on-line help, click the Windows® Start menu, point to Programs, and then point to the OMNIC folder. This opens a menu of the components of OMNIC you have installed. Click OMNIC Macros\Pro Help to open the Macros\Pro help system.



Using DDE Commands and Parameters

The OMNIC DDE commands and parameters can be used with other programs that support DDE. All of the DDE interactions between the programming language you choose and the OMNIC DDE commands and parameters must be handled using the programming language. This chapter provides a general introduction to DDE. For detailed information on DDE, refer to the manual for the programming language that you have chosen.

Dynamic data exchange basics

This section describes the use of some of the commands and parameters that have interactions. Not all commands and parameters are shown, only those requiring further explanation.

Dynamic Data Exchange is defined as the form of interapplication communications used by Microsoft® Windows programs to support the exchange of commands and parameters between applications. This communication takes the form of a conversation that is similar to the conversation between two people. A DDE conversation establishes a temporary or permanent link between two Windows applications. This link acts as a conduit for the exchange of information between the connected applications. The exchanged data can be information that is copied from one application to the other, or commands for the other application to process.

In a DDE conversation the application that initiates the conversation is known as the *destination application*, or simply the *destination*. The application responding to the conversation is called the *source application*. This terminology may seem backward, but keep in mind that the application that initiates the conversation usually wants some information to be sent to it (*destination* of information) by the responding application (*source* of information). An application may be involved in several conversations at the same time.

To initiate a DDE conversation, the destination application sends a message to Windows defining a source application that it wants to communicate with and a topic for the conversation. The topic defines the subject of the conversation and usually relates to some unit of source application data. For OMNIC the topic is always Spectra.

Windows applications that support DDE are always listening for conversations that refer to them. When a source application receives a request to have a conversation concerning a topic that it recognizes, it responds by starting a conversation. Once the conversation starts, the topic cannot be changed unless the conversation is ended and a new one is initiated. During the conversation the source and destination applications can exchange information concerning *items* in a bi-directional manner. *Items* consist of data or commands that are meaningful to both the source and destination applications. The item can be changed by either the source or destination during any given conversation.

There are many Windows compatible programming environments that can be used with OMNIC via DDE. High level Windows compatible languages such as Borland Turbo Pascal® for Windows and Microsoft C can be used to create advanced macros that will interact with OMNIC. You can also use the OMNIC DDE commands with the SmartPad® software from Softblox, Inc., that is included with the OMNIC Utilities software.

Syntax rules for DDE conversations

If you are using the OMNIC DDE commands and parameters with other applications, the following syntax rules apply:

- In DDE conversations, you must specify the name of the application and the topic of the conversation. The application name for OMNIC is “OMNIC”; the topic is “SPECTRA”.
- Commands must be enclosed in square brackets.
- Multiple commands can be passed in one message, separated by semicolons (i.e., [command1;command2;command3]).

For example, Macro1 is a Microsoft Word macro that opens a spectrum file, calculates noise between 2300 - 2000 cm^{-1} , then inserts the result into a Word document. Macro2 is a Microsoft Excel® macro that opens a spectrum file, calculates the height of the peak closest to 1600 cm^{-1} , then inserts the resulting peak location and height into an Excel spreadsheet.

```
Sub Macro1()  
  'Example Word macro.  
  chan = DDEInitiate(App:="OMNIC", Topic:="Spectra")  
  DDEExecute Channel:=chan, Command:="[Import_  
  ↳"c:\omnic\spectra\absorb.spa"]"  
  DDEPoke Channel:=chan, Item:="Display RegionStart",  
  ↳Data:="2000"  
  DDEPoke Channel:=chan, Item:="Display RegionEnd",  
  ↳Data:="2300"  
  DDEExecute Channel:=chan, Command:="[CalculateNoise]"  
  returnValue = DDERequest(Channel:=chan, Item:="Result  
  ↳Current")  
  DDETerminate Channel:=chan  
  ActiveDocument.Content.InsertAfter Text:=returnValue  
End Sub
```

```

Sub Macro2()
    'Example Excel macro.
    channelNumber = Application.DDEInitiate( _
        app:="OMNIC", _
        topic:="Spectra")
    Application.DDEExecute channelNumber, _
        ➡ "[Import ""c:\omnic\spectra\absorb.spa""]"
    Application.DDEExecute channelNumber, _
        ➡ "[PeakHeight 1600 Shift]"
    returnValue = Application.DDERequest(channelNumber, _
        ➡ "Result Array")
    Application.DDETerminate channelNumber
    Worksheets("Sheet1").Range("A1").Value = returnValue
End Sub

```



OMNIC DDE Commands

This chapter contains the OMNIC DDE commands organized by functional group and a list with complete descriptions of each OMNIC DDE command.

Functional groups of commands

The following lists show the OMNIC DDE commands grouped by function. (You may notice that some commands appear in more than one group.)

Analyze commands

The commands in this functional group are used to analyze spectra by using spectral libraries and other software tools.

AddSetupLibrary

AddToLibrary

ClearSetupLibraries

CreateLibrary

GetLibSpectrum

GetLibSpectrumTitle

ListAllLibraries

ListSetupLibraries

OpenLibrary

PeakPick

Quantify

QuantSetup

Search

SearchSetup

SelectLibrary

TextSearch

ViewLibrary

Data collection commands

The commands in this functional group are used to collect sample and background spectral data and enter data collection settings.

AutoTune
BenchSetup
CollectBackground
CollectSample
CollectSetup
ExperimentSetup
ExperimentWindow
GetExperimentList
GtBeamsplitter
GtBeamsplitterList
GtDetector
GtDetectorList
RestartServo
SetAsBackground
SetNewReference
StartBenchAlign
StopCollect
StorePhaseArray

Display and view commands

The commands in this functional group are used to specify and control the information that is included in a spectral display.

Annotate
AutoFullScale
CommonScale
CurrentYLimits
CustomScale
DeleteAnnotation
Display
DisplayBackground
DisplayLimits
DisplayReference
DisplaySetup
DisplayWhiteLight
FullScale
HideSelectedSpectra
MatchScale
MatchSpectrumSettings
OffsetScale
OmicMode
RedoScale
SetNewRegion
ShiftXAxis
ShowHeader
ShowRollZoom
ShowToolbar
StackOverlay
TruncateSpectrum
UndoScale

Edit commands The commands in this functional group are used to work with and modify individual spectral displays.

Clear

Copy

CopySelectedSpectra

CopyWithoutIfg

Cut

CutSelectedSpectra

DeleteSelAnnotation

DeleteSelectedSpectra

DeleteSpectrum

EditMenu

EditToolbar

Options

Paste

PasteFocus

PasteImage

Undo

UpdateLibraryTitle

UpdateLibSpectrumTitle

File commands

The commands in this functional group are used to obtain information about files and perform different operations with files.

Delay
DoesFileExist
EnableLogin
Exit
Export
ExportAs
GetCurrentUserName
GetSignatureInfo
Import
LoadConfiguration
LoadOptions
LoadParameters
Login
NewLogin
Runmacro
RunMacroandWait
SaveBackgroundFile
SaveConfiguration
SaveGroup
SaveOptions
SaveParameters
SignFile
VerifyFile

Help commands The commands in this functional group are used to obtain access to the different sources of help that are available.

About

HelpFTIRTheory

HelpGettingStarted

HelpHardware

HelpIndex

HelpLearnCollect

HelpMBHATR

HelpSBHATR

HelpSpectrometerTour

HelpTechSupport

HelpUsingHelp

Log file commands The commands in this functional group are used when performing logging operations.

AppendToLog

StartLogging

StopLogging

Mathematical calculation commands

The commands in this functional group are used to perform mathematical calculations when working with spectra.

Add
AddConstant
Average
BlackBody
CalculateNoise
Derivative
FWHH
LocateMinMax
MinMax
Multiply
ReferenceDivide
ReferenceMultiply
ReferenceScale

Microscope mapping commands

The commands in this functional group are used to control microscope mapping operations when using microscope accessories and mapping software.

ExportProfile

ExportProfileToGrams

ExtractLineMap

ExtractMapSpectrum

GetMapParams

MapReprocess

MapSetupGlobal

OpenMap

ResaveMapDataSet

SaveMap

setDisplayOptions

SetMapParams

SetProfileOptions

SetupMapGlobal

TranslateCoordToSpectrumIndex

OMNIC DDE commands The commands in this functional group are used when sending commands to OMNIC through the OMNIC DDE application.

Delay
GetVersionInfo
Invoke
Polling
Run
Set

Palette tool equivalent commands The commands in this functional group are used to perform the operations that the palette tools perform.

Annotate
CorrectedPeakArea
CorrectedPeakHeight
DeleteAnnotation
ListSpectra
PeakHeight
Select
SelectListSpectrum

Print commands The commands in this functional group are used when printing spectra or spectral data.

Print
PrintSetup

Process commands The commands in this functional group are used to manipulate spectral data.

Absorbance
Accordian
Add
AddBaselinePoint
AutoBaseline
AddPeak
AutoSmooth
AutoTune
Average
Baseline
Blank
CalculateNoise
Deresolve
Derivative
ExtractInterferogram
FSD
GetBaselineCorrectedSpectrum
GetStoredPhaseArray
InitializeManualBaseline
LaserAdjustment
Multiply
NormalizeSpectrum
OtherConversions
OtherCorrections
RatioSingleBeams
RegionSubtract
Reprocess
Smooth
SpectralInterpretation
SpectralMath
StraightLine
Subtract
Transmittance
Variance

Quant commands The commands in this functional group are used to analyze spectra using the TQ Analyst™ software.

AddStandardToMethod

Calibrate

DeleteStandardFromMethod

Quantify

QuantifyMultiple

QuantifyValidate

QuantSetup

ReplaceStandardInMethod

Residual

SaveQuant

SetUsageForStandard

QuantPad commands The commands in this functional group are used to analyze spectra using the OMNIC QuantPad™ software.

CloseReport

CurComponents

LoadGasParamSet

OpenReport

QuantReport

SaveGasParamSet

SetSpecQuantParams

Raman commands The commands in this functional group are used to control operations when performing Raman experiments.

CollectRaman
CollectReference
CustomRamanX
EnableRaman
InstrumentCorrect
MacroIlluminator
RamanBenchSetup
RamanCalibrate
RamanCollectSetup
RamanX
RamanXShift
ReverseRamanX
VrDisplaySetup
VrmCollectBackground
VrmCollectSample
VrmExperimentSetup
VRMGetRawData
VrmMatchSettings
VrmNanometers
VrmRamanShift
VrmReprocess
VRMSmooth
VRMTuneCenterWL
VrOtherConversions
VrOtherCorrections

Report commands The commands in this functional group are used to create and modify reports.

AddToNotebook
ChooseTemplate
NewNoteBook
NewTemplate
PreviewReport
PrintReport
ViewNotebook

Search and library related commands The commands in this functional group are used to create, search, and use spectral libraries.

AddSetupLibrary
AddToLibrary
AttachCompareResultToSpectrum
ClearSetupLibraries
Compare
CompressLibrary
CreateLibrary
GetLibSpectrum
GetLibSpectrumTitle
ListAllLibraries
ListSetupLibraries
OpenLibrary
ReplaceInLibrary
Search
SearchSetup
SelectHit
SelectLibrary
TextSearch
URLFTIRsearch
ViewLibrary

Series commands The commands in this functional group are used to analyze data obtained with the OMNIC Series software.

AddBasisVector
ChangeSeriesFormat
ChangeTitle
CoaddRegion
CollectSeries
CreateChemigram
CreateSeries
DeleteRegion
DoContour
ExportSeriesToGrams
ExtractSpectrum
FirstWaterfall
GenerateProfile
GetContourParams
NewDetTrace
NextWaterfall
OpenDataSet
RatioTrace
ResaveDataSet
RevertBasisVector
SeriesReproc
SeriesSetup
SetContourParams
SetupContour
SetupContourGlobal
ShowSeriesInfo
SplitSeries
SwitchToContour
SwitchToWaterfall

Step-scan commands

The commands in this functional group are used to perform step-scan experiments and are for use with Nexus® 870 and Magna-IR® 850 and 860 systems.

AmpMod

ArbUnits

850CollectB

850CollectS

InputA

MixQuad

PASUnits

PEMod

Phasemod

PhaseOps

ResetBench

Ratio

SMMod

SSTHelp

StepScanStatus

TimeRes

TRExtract

VCDCalibrate

Window control commands

The commands in this functional group are used to control the OMNIC window settings.

CascadeWindows
CloseWindow
MaximizeWindow
MinimizeWindow
MoveWindow
NewWindow
RestoreWindow
SelectWindow
SizeWindow
TileWindows

List of OMNIC DDE commands

The following is an alphabetical list of the OMNIC DDE commands with descriptions and examples.

About

This command retrieves version and copyright information for OMNIC and sets Result Current to About string. If invoked, the About dialog box appears.

Syntax: About

Example: ExecuteOMNIC “Invoke About”

Explanation: The dialog box containing the About message for OMNIC appears. The user must close the dialog box before continuing.

Absorbance

This command converts the selected spectrum or spectra to absorbance if possible.

Syntax: Absorbance

Example: ExecuteOMNIC “Absorbance”

Explanation: The selected spectra are converted to absorbance.

Accordian

This command is the Normalize Frequency command. It operates on all selected spectra and takes an optional argument that is the frequency to normalize to. (15,798.0 is used if this argument is not specified).

Syntax: Accordian [<Frequency>]

Arguments: The optional parameter Frequency is the frequency to normalize to.

Example: ExecuteOMNIC “Accordian”

Explanation: This repositions the data points at the locations they would be at if they had been collected using a spectrometer with a reference laser frequency of 15,798.0 wavenumbers.

Add This command adds the two selected spectra together to produce a new spectrum.

Syntax: Add

Remarks: Works only if two and only two spectra are selected. The two spectra are added together with scaling factors of unity to produce a new spectrum, which is placed into the active spectral window. The end points of the new spectrum will include all of the data points in both of the original spectra. For example, if a spectrum from 6000 to 1000 wavenumbers is added to a spectrum from 4000 to 400 wavenumbers, the end points of the new spectrum will be 6000 and 400 wavenumbers. If scaling is necessary, use the Multiply command before adding.

Example: ExecuteOMNIC "Add"

Explanation: A new spectrum is created from the addition of the two selected spectra.

AddBaselinePoint This command is used to add a point to a baseline being defined via DDE. This command cannot be used with the Invoke keyword.

Syntax: AddBaselinePoint <X Value> [<Optional Y Value>]

Arguments: The X-axis coordinate of the desired baseline point must be specified. The Y-axis coordinate is optional.

Remarks: See also GetBaselineCorrectedSpectrum and InitializeManualBaseline.

Example 1: AddBaselinePoint 3000

Explanation: A baseline point at 3000 wavenumbers is added to the currently defined baseline. Uses the spectrum value at the specified location as the Y value.

Example 2: AddBaselinePoint 2200 0.3

Explanation: A baseline point at 2200 wavenumbers and 0.3 absorbance unit is added to the currently defined baseline. Uses 0.3 as the Y value instead of the spectrum value.

AddBasisVector This command adds a basis vector to the Gram-Schmidt basis set and creates a new Gram-Schmidt reconstruction with this augmented basis set.

Syntax: AddBasisVector [<Time>]

Arguments: The <Time> argument is optional. This argument is in the same X-axis unit as the reconstructions in the currently selected series reconstruction window. If the <Time> argument is not supplied, the time position of the spectral cursor is used as the time value. In this case, the spectral cursor tool must be selected and the time response display of the series reconstruction window must be the active pane.

Remarks: The new Gram-Schmidt reconstruction is added to the time response display in the current series reconstruction window. When this command is completed, the new Gram-Schmidt reconstruction is the selected trace.

Example: ExecuteOMNIC “AddBasisVector 2.37”

Explanation: A basis vector from the spectrum collected at 2.37 minutes is added to the basis set. A new Gram-Schmidt reconstruction is calculated and added to the time response display of the current series reconstruction window.

AddConstant This command adds the specified value to every data point of the selected spectrum.

Syntax: AddConstant <Value>

Arguments: The value of the constant needs to be specified.

Example: AddConstant 1.5

Explanation: 1.5 is added to every data point of the selected spectrum.

AddPeak This command adds a peak or baseline to an existing spectrum. The options available are: zero the existing spectrum; add a linear baseline to the existing spectrum; or add a Gaussian, Lorentzian, Mixed Gaussian/Lorentzian, Pearson VII, Voigt or square peak to a spectrum. The resulting spectrum replaces the current spectrum.

Syntax: AddPeak Z

Replace the current spectrum with a zero spectrum.

AddPeak BL <Intensity1> <Intensity2>

Add a linear baseline to the current spectrum. <Intensity1> is the intensity at the low frequency end of the spectrum and <Intensity2> is the intensity at the high frequency end of the spectrum.

AddPeak SQ <Height> <Location> <Width>

Add a square wave peak to the current spectrum where <Height> is the amplitude of the peak. The peak is centered at <Location> with a width <Width>. (The peak goes from <Location>-<Width>/2 to <Location>+<Width>/2.)

AddPeak NULL <Location> <Width>

Add a blanked value to the current spectrum where the blanked region goes from <Location>-<Width>/2 to <Location>+<Width>/2.

AddPeak G <Height> <Location> <Width>

Add a Gaussian peak to the current spectrum where <Height> is the amplitude of the peak. The peak is centered at <Location> and <Width> is the full width at half of the maximum.

AddPeak L <Height> <Location> <Width>

Add a Lorentzian peak to the current spectrum where <Height> is the amplitude of the peak. The peak is centered at <Location> and <Width> is the full width at half of the maximum.

(Continued on next page)

AddPeak MGL <Height> <Location> <WidthG> <WidthL> <PartG>

Add a Mixed Gaussian and Lorentzian peak to the current spectrum where <Height> is the amplitude of the peak. The peak is centered at <Location>, <WidthG> is the full width at half of the maximum of the Gaussian peak and <WidthL> is the full width at half maximum of the Lorentzian peak. The value of <PartG> is the proportion of Gaussian character in the peak. This value must be in the range from zero to one, inclusive. If <PartG> is zero, then the peak is a pure Lorentzian. If <PartG> is one, then the peak is a pure Gaussian.

AddPeak P <Height> <Location> <Width> <PearsonFactor>

Add a Pearson VII peak to the current spectrum where <Height> is the amplitude of the peak. The peak is centered at <Location> and <Width> is the full width at half maximum of the Gaussian part of the peak. The value <PearsonFactor> is a value that ranges from one to infinity. When <PearsonFactor> is one, the peak is a pure Lorentzian and when <PearsonFactor> is infinite, the peak is a pure Gaussian.

AddPeak V <Height> <Location> <WidthG> <WidthL>

Add a Voigt function peak to the current spectrum where <Height> is the amplitude of the peak. The peak is centered at <Location>. The value in <WidthG> is (approximately) the full width at half maximum of the Gaussian part of the peak. The value in <WidthL> is the Lorentzian contribution. This value must be set empirically to give the type of peak that is desired.

AddPeak NOISE <RMSNoise>

Replace the current spectrum with a noise spectrum. The noise is normally distributed and has root mean square amplitude given by <RMSNoise>.

AddSetupLibrary

This command adds a library to the list of search libraries or QC libraries. This is the same as clicking the Add button in the Library Setup window.

Syntax: AddSetupLibrary <library root name> [<SEARCH|COMPARE>]

Arguments: The <library root name> argument is the DOS filename of the library you want to add, without the extension. For example, to add the Aldrich Condensed Phase Sample library (c:\my documents\omnic\libs\sea007d.lb*), you would use sea007d as the library root name.

The optional keywords SEARCH and COMPARE specify whether the library is added to list of normal library search libraries or to the list of QC libraries. If no keyword is used, the default value of SEARCH is assumed.

Examples: ExecuteOMNIC “AddSetupLibrary sea007d SEARCH”
ExecuteOMNIC “AddSetupLibrary sea007d”
ExecuteOMNIC “AddSetupLibrary abc001 COMPARE”

Explanation: The first two examples add the Aldrich Condensed Phase Sample library (c:\my documents\omnic\libs\sea007d.lb*) to the list of search libraries. The third example adds the hypothetical library “abc001” to the list of QC libraries.

AddStandardToMethod

This command adds the currently selected spectrum as a standard in the currently selected quant method. The concentrations assigned for this standard may be entered in the command line (optional). If no concentrations are entered, the concentrations are taken to be zero.

Syntax: AddStandardToMethod <Conc1> <Conc2> ... <ConcLast>

Parameters: <Conc1> is the concentration to be assigned to component #1. If no value is entered or if the value is set to '*', a zero is saved as the concentration.

<Conc2> is the concentration to be assigned to component #2. If no value is entered or if the value is set to '*', a zero is saved as the concentration.

<ConcLast> is the last concentration value entered.

Fewer values may be entered than components. If this happens, all extra components are set to zero.

For an internal known pathlength method, the last component is the pathlength value that is assigned for the standard.

Remarks: When this command is executed, the current quant method becomes uncalibrated. The EDIT option should have been specified when the method was opened, since this command will attempt to automatically rewrite the method to the disk. See the QuantSetup command.

Examples: QuantSetup C:\OMNIC\QUANT\ABC.QNT EDIT

AddStandardToMethod

AddStandardToMethod 2.1 3.4 2.7

AddStandardToMethod 2.1 * 2.7

Explanation: The first example adds the current spectrum as a standard in the currently selected quant method.

The second example adds the current spectrum as a standard in the currently selected quant method. It assigns concentration values of 2.1, 3.4 and 2.7 to the first three components in the standard.

The final example adds the current spectrum as a standard in the currently selected quant method. It assigns concentration values of 2.1, 0.0 and 2.7 to the first three components in the standard.

AddToLibrary This command adds the selected spectrum to the currently active user library.

Syntax: AddToLibrary [<FieldInfo1 ... <FieldInfo9>] [Select]
Invoke AddToLibrary [Select]

Arguments: If the command is used without the Invoke keyword, up to 9 optional library field information arguments can be added. If the Invoke keyword is used with AddToLibrary, the Select argument can be used. Adding Select to the command causes the operator to be prompted for a library selection. If the Invoke keyword form of this command is used without the Select argument, the spectrum is added to the currently selected library.

Remarks: Spectra can be added only to user libraries. The active library may be selected either non-interactively using the OpenLibrary command or interactively using the invoke form of the SelectLibrary command. Using the Select form of the command will generate a selection list just before the AddToLibrary is done.

Examples: ExecuteOMNIC “AddToLibrary MW=550”
ExecuteOMNIC “Invoke AddToLibrary Select”

Explanation: In the first example, the selected spectrum is added to the currently active user library. The library entry uses the title of the currently selected spectrum as the compound name and the text “MW=550” is placed in the first optional field information box.

In the second example, the Select Library dialog box is displayed. Then the spectrum is added to the selected library.

AddToNotebook

This command creates a report from the active window and adds it to a notebook.

Syntax: AddToNotebook <Filename> [<Title>]
Invoke AddToNotebook [<Filename>]

Arguments: The <Filename> argument is the full DOS pathname of the notebook file to which the report is added. A filename must be specified if the Invoke keyword is not used. If the Invoke keyword is used, the filename is optional.

<Title> is the title to give to the report being added. This command is optional; if it is not present, the report is given the title “Untitled”.

The Invoke keyword controls whether or not a report title and OMNIC's Add To Notebook screen are displayed.

If the <Filename> argument is present without Invoke, the report is added to the specified notebook without displaying a title prompt or the Add To Notebook screen.

If Invoke and a filename are used, only the report title prompt appears.

If Invoke and no filename are used, a notebook file selection dialog box is displayed when no notebook is selected. If a notebook has been selected, only the Add To Notebook screen appears.

Examples: ExecuteOMNIC “AddToNotebook
➔C:\OMNIC\REPORT\LAB.NBK”
ExecuteOMNIC “Invoke AddToNotebook
➔C:\OMNIC\REPORT\LAB.NBK”
ExecuteOMNIC “Invoke AddToNotebook”

Explanation: The first example adds a report to the notebook lab.nbk without displaying any prompts or windows. The second example prompts for a report title, then adds the report without displaying the Add To Notebook screen. The last example displays the Add To Notebook screen. The report is added using the current report template, which can be specified with the ChooseTemplate command.

AmpMod This command opens the Amplitude Modulation setup dialog box or sets the system to AM step-scan mode.

Syntax: Ampmod

Arguments: When the command is given in a macro with the Invoke keyword, the macro pauses until the operator completes changes to the parameters and closes the Amplitude Modulation setup dialog box by choosing OK. If the command is called without Invoke, the system will be put into AM step-scan mode.

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. If, before giving this command, the scan control word (850 ScanControl parameter) is not set to 1, the latest AM step-scan parameters will be loaded. If it is set to 1, any parameters set via macro commands will be retained. With or without the Invoke keyword, when the dialog box is closed (by choosing OK), the current parameters will be saved as the latest AM step-scan parameters, the scan control word will be set to 1, and SST data collection will be enabled.

Example: ExecuteOMNIC “Invoke Ampmod”

Annotate This command adds annotation to the selected spectra.

Syntax: Annotate <X-axis location> <Annotation text> [Delay]

Arguments: Two arguments are required. The first is the X-axis coordinate where the annotation is to be attached. The second is the text of the annotation. The text must be enclosed in double quotes ““like this”” if it contains embedded spaces. The optional Delay argument is the length of the attachment line in Y-axis units.

Examples: ExecuteOMNIC “Annotate 2900 Aliphatic”

ExecuteOMNIC “Annotate 2900 ““Aliphatic Hydrocarbon Peak””””

Explanation: In the second example, a text label which reads “Aliphatic Hydrocarbon Peak” is created and linked to the selected spectrum at the 2900 wavenumbers.

AppendToLog

This command appends a line of text to the log file if logging is enabled. If logging is disabled, this returns a fail message.

Syntax: AppendToLog <Log text>

Arguments: The text to be appended to the log file must be specified. The text must be enclosed in double quotes “like this” if it contains embedded spaces.

Examples: ExecuteOMNIC “AppendToLog Sample2345”
ExecuteOMNIC “AppendToLog “Sample from T. Eliot””

Explanation: In the first example, the text “Sample2345” is added to the log file. In the second example, the text “Sample from T. Eliot” is added to the log file.

ApplicationInfo

This command is used to report the .ini file for the current application (OMNIC or TQ Analyst), the name of the file being executed, and the version number. It lets other applications determine which .ini file should be used to access additional application information.

Syntax: ApplicationInfo

Arguments: None.

Example: ExecuteOMNIC “ApplicationInfo”

Explanation: The result is placed into the variable Result Current. The format in Result Current is:

<name of .ini file> <tab> <name of executable> <tab> <version number of executable>

Thus, for normal OMNIC, version 4.1, the string in Result Current would contain:

omnic.ini <tab> OMNIC.EXE <tab> 4.1a

For normal TQ Analyst, version 1.1a, the string in Result Current would contain:

turboq.ini <tab> TURBOQ.EXE <tab> 1.1a

ArbUnits This command changes the Y-axis units of the selected spectrum to Arbitrary units.

Syntax: [invoke] ArbUnits

Arguments: None

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. See the description of the Set Arbitrary Units command in SST Help Topics.

AttachCompare ResultToSpectrum

After a Compare command is issued, this command places the result in the comment file of the selected spectrum. Do not invoke.

Syntax: AttachCompareResultToSpectrum

Examples: ExecuteOMNIC "Compare"
ExecuteOMNIC "AttachCompareResultToSpectrum"

Explanation: The first example performs QC compare on the selected spectrum. The second example places the results in the comment field of the of the selected spectrum's header.

AutoBaseline

This command performs an automatic baseline correction on the selected spectrum.

Syntax: AutoBaseline

Remarks: The selected spectrum is corrected over the currently defined region. If no region is defined, the correction is done over the currently displayed region. This command works only if one and only one spectrum is selected. This command works only on absorbance-like spectra; that is, spectra in absorbance, Kubelka-Munk, log (1/R) and photoacoustic formats.

Example: ExecuteOMNIC "AutoBaseline"

- AutoFullScale** This command turns Automatic full scale mode on or off.
- Syntax: AutoFullScale [TRUE | FALSE]
- Remarks: Has the same effect as setting Options Autofullscale to true or false.
-
- AutoSmooth** This command performs an adaptive smooth on the selected spectrum, producing a new spectrum.
- Syntax: AutoSmooth
- Remarks: Works if one or more spectra are selected. The smooth is applied to the entire spectrum, regardless of any selected region. To perform a Savitsky-Golay smooth, use the Smooth command.
- Example: ExecuteOMNIC “AutoSmooth”
-
- AutoTune** This command initiates AutoTune.
- Syntax: AutoTune
- Remarks: When invoked, this command displays a dialog box indicating the status of the alignment process. Result Current is populated with progress messages. Uses current settings for Collect NumDataPts and Collect NumScans (Collect NumScans should be set to 1 before this command is issued). At completion Result Current contains “Auto alignment complete” for success or “Auto alignment stopped” for failure.
- Example: Invoke AutoTune
- Explanation: AutoTune is initiated and a status message is displayed in a dialog box until the alignment is complete.

Average This command calculates the average Y-axis value in a region of the selected spectrum.

Syntax: Average

Parameters: Uses the Display RegionStart and Display RegionEnd parameters of the active window if these values are not zero. If they are both zero, the Display XStart and Display XEnd parameters are used instead.

Remarks: Useful for averaging over a noisy spectral region to determine baseline points for a linear baseline correction. The result is returned as a string using the GetOMNIC routine for the parameter Result Array or Result Current. The format of the Result Current parameter is shown below.

Range: 3400.832 <tab> 3084.671

Average: 0.00034

Example: ExecuteOMNIC "Average"

Baseline This command displays the interactive Baseline Correct window.

Syntax: Baseline

Remarks: When the macro is run, the macro pauses at this point until the operator completes the baseline correction and closes the Baseline Correct window. If this command is issued when the Baseline Correct window is already open, the existing window is brought to the front.

Example: ExecuteOMNIC "Baseline"

BenchSetup This command displays the Optical Bench Setup window.

Syntax: BenchSetup

Remarks: When the command is issued, the macro pauses at this point until the operator completes changes to the parameters and closes the Optical Bench Setup window.

Example: ExecuteOMNIC “Invoke BenchSetup”

Note Since the release of OMNIC 4.0, the Optical Bench Setup window is obsolete. Use Experiment Setup instead. This command is still supported for previous versions of OMNIC.

BlackBody This command creates a new spectrum that represents a blackbody of the specified temperature, with the specified data spacing.

Syntax: BlackBody <Temperature> <DataSpacing> <StartFreq> <EndFreq>

Arguments: All four arguments are required. The temperature is in kelvins (K). The data spacing is the actual spacing (in wavenumbers) between data points; not resolution. To find the data spacing of a particular spectrum, click the Information button (labeled “i”) to check the collection and processing information. The specified data spacing covers the range from StartFreq to EndFreq.

Example: BlackBody 1200 2.0 7800 400

Explanation: Creates a blackbody curve of 1200 K with a data spacing of 2.0 and end points at 7800 and 400 wavenumbers.

Blank This command blanks a region of the currently selected spectrum.

Syntax: Blank

Parameters: Uses the Display RegionStart and Display RegionEnd parameters of the active window if they are not zero. If they are both zero, the Display XStart and Display XEnd parameters are used instead.

Remarks: This operation is performed directly on the selected spectrum but can be undone with the Undo command. It may be used to eliminate artifacts such as those that occur when bands are totally absorbing.

Example: ExecuteOMNIC “Blank”

Explanation: In this example, the currently viewed or highlighted spectral region is blanked.

CalculateNoise This command calculates the noise in a region of the selected spectrum.

Syntax: CalculateNoise

Parameters: Uses the Display RegionStart and Display RegionEnd parameters of the active window if they are not zero. If they are both zero, the Display XStart and Display XEnd parameters are used instead. The result is obtained by getting the parameter Result Current. The format of the result is shown below.

Range: 2250.088 <tab> 2050.681

Peak-to-Peak: 0.00989

RMS: 0.00351

The format of Result Array is shown below:

2250.880, 2050.681, 0.00989, 0.00351

Example: ExecuteOMNIC “CalculateNoise” Text1.Text = GetOMNIC(“result current”)

Explanation: Calculates the noise in the current spectrum over the region defined by the parameters described above. In this case, the GetOMNIC call places the result string into a Visual Basic text field.

Calibrate This command calibrates the currently selected quant method.

Syntax: Calibrate

Parameters: No parameters are used. This command cannot be invoked.

Example: Calibrate

Explanation: This is the only way to execute this command.

CascadeWindows This command displays all of the open windows in a cascade.

Syntax: CascadeWindows

Remarks: Used to rearrange all the open spectral windows so that the title bars are all visible. The spectral windows are placed in the OMNIC window in a diagonal, staggered stack arrangement.

Example: ExecuteOMNIC "CascadeWindows"

ChangeSeriesFormat

This command changes the Y-axis format of data to % transmittance or absorbance. This command is used for series files that are in a final format. Use SeriesReproc to process interferograms or single-beam spectra. The new format is set by passing in the string “absorbance” or “%transmittance”.

Syntax: ChangeSeriesFormat Absorbance|% Transmittance

Arguments: This command takes 0, 1, 3 or 4 arguments. With no arguments, the command prompts even if it is not invoked. The first argument has to be the exact text of the function to apply as seen in the Apply Function dialog box of OMNIC Series (although case is not important). This list of functions is below. Since this is one argument, if there are embedded spaces in the name of the function, you must enclose this argument in double quotes. The next two arguments can be used to specify a range for functions that need a range. The last argument is a constant for commands that need a constant, like “Add constant”. If you need to specify a constant and not a range, just put in dummy arguments as place holders for arguments 2 and 3.

Absorbance	Blank
% Transmittance	Straight line
% Reflectance	Smooth
Log (1/R)	Automatic smooth
Kubelka-Munk	First derivative
Auto baseline correction	Second derivative
ATR correction	Multiply by constant
Dispersion correction	Add constant
H2O correction	Raman shift
CO2 correction	Raman unshift
H2O and CO2 correction	Custom shift

Examples: ExecuteOMNIC “ChangeSeriesFormat ““Absorbance”””

ExecuteOMNIC “ChangeSeriesFormat ““Add Constant””” 1 2 -300

Explanation: The first example changes the Y-axis format of the data to absorbance. The second example adds -300 to every data point in the selected spectrum. The 1 and 2 are dummy placeholders.

ChangeTitle This command changes the title of the currently selected series file.

Syntax: ChangeTitle <NewSeriesTitle>

Example: ExecuteOMNIC “ChangeTitle ““This is my new title”””

Explanation: Changes the title of the series file to “This is my new title”.

ChooseTemplate This command selects the active report template file.

Syntax: ChooseTemplate [<Filename>]

Arguments: If the filename is not specified, a prompt is given to select a filename (even if not invoked). If the filename is given, no prompt is given (even if invoked).

Examples: ExecuteOMNIC “Invoke ChooseTemplate”

ExecuteOMNIC “Invoke ChooseTemplate
➔C:\OMNIC\REPORT\SEARCH1.RPT”

Explanation: The first example causes the Open dialog box to appear, and the operator selects the template to be opened interactively. The second example defines exactly the template file to be opened.

Clear This command sends the Clear message to the window that has input focus.

Syntax: Clear

Remarks: Probably not useful from DDE. See also DeleteSpectrum.

Example: Clear

Explanation: A Clear operation is performed on the active window. If the active window is a text window, the selected text is cleared. If the active window is a spectral window, the selected spectra are cleared

ClearSetupLibraries

This command clears the list of libraries generated during the search setup operation. This command can be used to start with an empty set of libraries to be searched.

Syntax: `ClearSetupLibraries [Compare | Search]`

Parameters: Compare causes the setup libraries for QC Compare to be cleared. Search causes the setup libraries for Search to be cleared. If no argument is included with the command, this is the default.

Example: `ExecuteOMNIC "ClearSetupLibraries"`
`ExecuteOMNIC "AddSetupLibrary SEA002D"`

Explanation: In this example, `ClearSetupLibraries` is used with the `AddSetupLibrary` command to select a single library for searching.

CloseReport

This command closes the currently open quant report. The file is updated with the number of entries made in the file.

Syntax: `CloseReport`

Remarks: Available only if you have the QuantPad software installed.

Example: `ExecuteOMNIC "CloseReport"`

CloseWindow

This command closes a window.

Syntax: `CloseWindow [YES | NO] [<Window title>]`

Arguments: The arguments are optional. If no window title is specified, the currently active window is closed. If the word YES or NO is given as the first argument, a window title must be specified. The specified window closes without showing the confirmation prompt. In this case, the close is done as if the prompt were answered by selecting the Yes or No option.

Example: `ExecuteOMNIC "CloseWindow No ""Window Of Unknowns"""`

Explanation: Closes the spectral window titled "Window Of Unknowns." Notice the need for extra quotation marks when spaces are contained in the window title. The use of No in the command eliminates the need to respond to a Save dialog box if the spectrum has been changed.

CoaddRegion

This command coadds a time region of the series reconstruction and displays the resulting coadded spectrum in the spectral data display of the series reconstruction window.

Syntax: `CoaddRegion [<StartTime> <EndTime> [<WindowTitle>]]`

Arguments: All arguments are optional. The <StartTime> and <EndTime> arguments are in the same X-axis unit as the reconstructions in the currently selected series reconstruction window. If these arguments are not supplied, the limits of the time region selected with the region tool are used as the time values. In this case, the region tool must be selected and the time response display of the series reconstruction window must be the active pane.

The <WindowTitle> argument is the title of the window where you want the coadded spectrum to be placed. If the <WindowTitle> argument is not supplied, the coadded spectrum is placed into the spectral data display of the series reconstruction window. If you use the <WindowTitle> argument, you must also supply the <StartTime> and <EndTime> arguments.

Remarks: Produces a coadded spectrum. Use the `ExtractSpectrum` command to retrieve individual spectra from a series data set.

Example: `ExecuteOMNIC "CoaddRegion 10.37 10.88"`

Explanation: The spectra collected between 10.37 and 10.88 minutes are coadded. The resulting coadded spectrum is placed in the spectral data display of the current series reconstruction window.

CollectBackground

This command initiates background data collection. If the Polling keyword is not used, the macro will not move on to the next command until the background is collected and processed. If this command is used with the Invoke keyword, the data collection window is displayed and interactive data collection is done. If the Invoke keyword is not used, the collection is done in the background. If the collection window is not displayed during data collection, the background is placed in an invisible DDE window; it can be displayed by using the DisplayBackground command.

Syntax: CollectBackground [<background title>] [Auto] [Polling]

Arguments: The <background title> and Auto arguments are optional. If no title is specified, the background will have as its title the word “Background” followed by the current date and time. The Auto argument sets up data collection so that no operator prompts for entering a title and preparing for data collection are displayed. If the Auto argument is used along with the Invoke keyword, the collection window will be displayed, but the operator prompts will not appear.

Remarks: The CollectBackground command is not available for the Almega spectrometer. When using an Almega spectrometer, you should use the VrmCollectBackground command.

Example: ExecuteOMNIC “CollectBackground”

Explanation: Initiates background data collection. The macro stops and waits for the data collection to be completed before it continues.

850CollectB This command initiates a step-scan background data collection.

Syntax: 850CollectB [Auto]

Arguments: The Auto argument is optional. If it is included, the data collection will proceed without operator prompts. The Invoke keyword has no effect.

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. When the command is given in a macro, a step-scan background collection will be initiated, assuming valid SST parameters have been set by a prior call to Ampmod, Phasemod or SMod, or by explicit DDE parameter set calls. When the collection window is closed, the macro will continue.

Example: ExecuteOMNIC "850CollectB"

CollectRaman

This command initiates FT-Raman sample data collection. The macro will not move on to the next command until the sample is collected and processed unless the Polling keyword is used. If this command is used with the Invoke keyword, the Collect Raman window is displayed and interactive data collection is done. If the Invoke keyword is not used, the collection is done without displaying the window and the sample spectrum is placed in an invisible DDE window; the operator can display it by using the Display command. The macro will stop and wait for the data collection to be completed before it continues.

Syntax: CollectRaman [<Sample title>] [Auto] [Polling]

Arguments: The <Sample title> and Auto arguments are optional. If no title is specified, the sample spectrum title will be controlled by the current options settings. The Auto argument sets up data collection so that no operator prompts for entering a title and preparing for data collection are displayed. If the Auto argument is used along with the Invoke keyword, the Collect Raman window will be displayed, but the operator prompts will not appear.

Remarks: This command is available only for FT-Raman systems. For dispersive Raman systems, use the VrmCollectSample command. If you are collecting a corrected spectrum, make sure a reference spectrum is available for correcting the sample spectrum. The reference spectrum can be the current reference (if there is a reference currently in memory) or the reference specified using Reference Handling in the Collect Setup dialog box.

Example: ExecuteOMNIC "CollectRaman"" Sample from J. Jones""

Explanation: Collects a Raman sample spectrum without displaying operator prompts or the Collect Raman window. The spectrum is given the title "Sample from J. Jones."

CollectReference

This command initiates reference data collection for Raman. The macro will not move on to the next command until the reference is collected and processed, unless the Polling keyword is used. If this command is used with the Invoke keyword, the Collect Reference window is displayed and interactive data collection is done. If the Invoke keyword is not used, the collection is done without displaying the window, and the reference is placed in an invisible DDE window; the operator can display it by using the DisplayReference command.

Syntax: CollectReference [<Reference title>] [Auto] [Polling]

Arguments: The <Reference title> and Auto arguments are optional. If no title is specified, the reference will have the current date and time as its title. The Auto argument sets up data collection so that no operator prompts for entering a title and preparing for data collection are displayed. If the Auto argument is used along with the Invoke keyword, the Collect Reference window will be displayed, but the operator prompts will not appear.

Remarks: The CollectReference command is available only for FT-Raman systems.

Example: ExecuteOMNIC “CollectReference”

Explanation: Initiates reference data collection. The macro stops and waits for the data collection to be completed before it continues.

CollectSample

This command initiates sample data collection. The macro will not move on to the next command until the sample is collected and processed, unless the Polling keyword is used. If this command is used with the Invoke keyword, the data collection window is displayed and interactive data collection is done. If the Invoke keyword is not used, the collect is done in the background. If the collection window is not displayed during data collection, the sample spectrum is placed in an invisible DDE window; it can be displayed by using the Display command. The macro will stop and wait for the data collection to be completed before it continues.

Syntax: CollectSample [<Sample title>] [Auto] [Polling]

Arguments: The <Sample title> and Auto arguments are optional. If no title is specified, the sample spectrum title will be controlled by the current options settings. The Auto argument sets up data collection so that no operator prompts for entering a title and preparing for data collection are displayed. If the Auto argument is used along with the Invoke keyword, the collection window will be displayed, but the operator prompts will not appear.

Remarks: Be sure to consider the CollectSetup background handling parameter setting when this command is used. You must do so if there is a current background that will be used or if a new one will be collected before each sample. If you are using an Almega spectrometer, you should use the VrmCollectSample command instead.

Example: ExecuteOMNIC "CollectSample ""Sample from J. Jones"""

Explanation: Collects a sample spectrum without displaying operator prompts or the collection window. The spectrum is given the title "Sample from J. Jones."

850CollectS This command initiates a step-scan or PEM sample data collection.

Syntax: 850CollectS [<sample title>] [Auto]

Arguments: The <sample title> and Auto arguments are optional. If no title is specified, the sample will be given the current date and time as its title. If the Auto argument is included, the data collection will proceed without operator prompts. The Invoke keyword has no effect.

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. When the command is given in a macro, a sample collection will be initiated assuming valid SST parameters have been set by a prior call to AmpMod, PhaseMod, PEMod, SMod, or TimeRes, or by explicit DDE parameter set calls. When the data collection window is closed, the macro will continue.

Example: ExecuteOMNIC "850CollectS ""Sample # 1"""

CollectSeries This command initiates series data collection. Must be used with the Invoke keyword. The macro will stop and wait for the series collection to be completed before it continues.

Syntax: Invoke CollectSeries [<SeriesTitle>] [Auto] [Polling]

Arguments: The <SeriesTitle> and Auto arguments are optional. If no title is specified, the series will have the current date and time as its title. The Auto argument sets up series collection so that no operator prompts for entering a title and preparing for background collection are displayed. The system will wait for a start signal either from the "...begin data collection." dialog box or from an external trigger.

Example: ExecuteOMNIC "Invoke CollectSeries ""Vial #3"" Auto"

Explanation: Collects a series without displaying operator prompts. The series is given the title "Vial #3".

CollectSetup This command opens the Collect Setup dialog box.

Syntax: Invoke CollectSetup

Remarks: Must be used with the Invoke keyword because this command displays an interactive dialog box. It can be used in a macro when the operator needs to change data collection parameters interactively. When the operator closes the dialog box, the macro will continue.

Example: ExecuteOMNIC “Invoke CollectSetup”

Note Since the release of OMNIC 4.0, the Collect Setup dialog box is obsolete. This command is still supported for previous versions of OMNIC.

CommonScale This command sets the Y-axis mode of the active window to Common Scale.

Syntax: CommonScale

Remarks: Common Scale changes the display scale for the entire frequency range, not just the displayed portion. However, only the displayed region is used to calculate the highest and lowest points that will define the common scale.

Example: ExecuteOMNIC “CommonScale”

Explanation: The minimum and maximum Y values from all the spectra become the new Y-axis display limits.

Compare This command performs a QC Compare operation on the currently selected spectrum. All arguments are identical to the Search command. Can be used with the Invoke keyword or with the Auto keyword.

Syntax: Compare [Auto]

Parameters: If the Compare window is already open when the Compare command is executed, the Compare window is brought to the front. The optional argument Auto can be added to execute the comparison without prompting the operator to specify a window for the comparison results. When the Auto argument is used, the Compare window is closed automatically when the comparison is completed. The comparison results are displayed in a stacked window and can be retrieved by getting the value of the parameter Result Compare.

Examples: ExecuteOMNIC “Compare”
Text1.Text = GetOMNIC(“Result Compare”)
ExecuteOMNIC “Invoke Compare”

Explanation: The first example uses the currently selected libraries and automatically compares the selected spectrum. The results are then transferred to the Visual Basic text field Text1.Text. In the second example the interactive comparison is invoked again using the existing list of spectral libraries.

CompressLibrary This command compresses a library by getting rid of holes created by deleting spectra. This means that the index number of spectra in the library will be changed. This works only on user created libraries. Accepts no arguments, working on the currently selected library.

Syntax: CompressLibrary

Example: ExecuteOMNIC “CompressLibrary”

Explanation: The holes made in the selected library from deleting spectra are now deleted. The index number of the spectra in the compressed library is now different from that of the original library.

Copy This command sends the copy message to the window that has input focus.

Syntax: Copy

Remarks: Probably not useful from DDE. See also CopySelectedSpectra.

Example: Copy

Explanation: A copy operation is performed on the active window. If the active window is a text window, the selected text is copied. If the active window is a spectral window, the selected spectra are copied.

CopySelectedSpectra This command copies the selected spectra to the Clipboard.

Syntax: CopySelectedSpectra

Example: ExecuteOMNIC “CopySelectedSpectra”

Explanation: Places a copy of all selected spectra onto the Clipboard. This can be used in preparation for pasting spectra into other spectral windows or other Windows programs such as a word processor.

CopyWithoutIfg This command makes a copy of the currently selected spectrum without any attached interferograms.

Syntax: CopyWithoutIfg

Remarks: Could behave strangely if more than one spectrum is currently selected. If the selected spectrum does not have attached interferograms, a new copy is still created and no error is reported.

CorrectedPeakArea This command calculates the corrected peak area in a given region.

Syntax: CorrectedPeakArea [<Baseline start> <Region start> <Region end>
<Baseline end>]

Arguments: The four arguments are optional. If they are not specified, the current settings of the parameters below are used. If the arguments are specified, they are used to set the parameters mentioned below.

Parameters: Display StartAreaBase, Display StartAreaRegion, Display EndAreaRegion and Display EndAreaBase

Example: ExecuteOMNIC “CorrectedPeakArea 2990 2963 2870 2800”

Explanation: Calculates the area of the peak between the limits of 2963 and 2870 wavenumbers, corrected for a linear baseline drawn between points 2990 and 2800 wavenumbers. The parameter Result Current returns the peak area in the following format:

Area:71.892 Uncorrected:87.648 Region:(2963.000, 2870.000)
Baseline:(2990.000, 2800.000)

The parameter Result Array returns only the numerical values separated by the list character.

CorrectedPeakHeight

This command calculates the corrected peak height at a given location.

Syntax: CorrectedPeakHeight [<Baseline start> <Peak location> <Baseline end>] [Shift]

Arguments: The three arguments are optional. If not specified, the current settings of the parameters shown below are used. If the arguments are specified, they are used to set the parameters shown below. The optional Shift argument causes the command to seek the closest peak instead of the fixed location.

Parameters: Display StartPeakBase, Display PeakLoc, and Display EndPeakBase

Example: ExecuteOMNIC "CorrectedPeakHeight 2973 2926 2800"

Explanation: Calculates the height of the peak with a maximum at 2926 wavenumbers, corrected for a linear baseline drawn between points 2973 and 2800 wavenumbers. The parameter Result Current returns the peak height in the following format:

Height:1.765 Uncorrected:1.958 X:2926.00
Baseline:(2973.000, 2800.00)

The parameter Result Array returns only the numerical values separated by the list character.

CreateChemigram

This command calculates a Chemigram™ from the current series data set and adds the resulting trace to the series reconstruction window.

Syntax: CreateChemigram [<StartWavenumber> <EndWavenumber>
<StartBaseline> <EndBaseline>]

Arguments: The <StartWavenumber> and <EndWavenumber> arguments are optional. These arguments are in the same X-axis unit as the linked trace in the currently selected series reconstruction window. If these arguments are not supplied, the limits of the region tool are used as the start and end values. In this case, the region tool must be selected and the spectral data display of the series reconstruction window must be the active pane.

Remarks: If the Invoke keyword is used, the Create Chemigram dialog box is displayed. The new Chemigram is added to the time response display of the current series reconstruction window. When this command is completed, the new Chemigram is the selected trace.

Example: ExecuteOMNIC “CreateChemigram 1170 1150 1170 1150”

Explanation: Calculates a Chemigram from the current series data set over the spectral region 1170 to 1150 wavenumbers with a baseline of 1170 to 1150 wavenumbers. The resulting Chemigram is added to the current series reconstruction window.

CreateLibrary

This command opens the Create Library dialog box, which lets you create a user library.

Syntax: CreateLibrary

Example: ExecuteOMNIC “CreateLibrary”

Explanation: Displays the Create Library dialog box. This allows the operator to create a new user library. The macro stops until this dialog box is closed.

CreateSeries

This command creates a series file from a set of spectra of the same resolution and final format. The Invoke will show a dialog box inputting the information. If the command is not invoked, parameters from the SERIES parameter set are used along with parameters in the command to execute the creation. The uninvoked command will use only spectra of the format XXXX0000.SPA that are in a sequence. The invoked command has more flexibility.

Syntax: CreateSeries <First Index> <Last Index> <Base Filename>
➔[<background filename>]

Arguments: First Index Index number of first spectrum to read
LastIndex Index number of last spectrum to read
Base Filename Name of files to read:
C:\OMNIC\SPECTRA\EXAM.SPA
Background Filename Background to read into the series file
(optional)

Parameters from the SERIES parameter set:

SampleID Title of series file
MinRange Minimum Z-axis value
MaxRange Maximum Z-axis value
ZUnits Number defining the Z-axis unit
2 = Data points
5 = Frequency in hertz
6 = Time in minutes
7 = File number
30 = Spectrum number
37 = Time in seconds
38 = Phase angle

Remarks: The active window must be a series reconstruction window.

Example: ExecuteOMNIC "Invoke CreateSeries 0 100
➔""C:\OMNIC\SPECTRA\EXAM.SPA"""

Explanation: Create a new series file using the spectra from index 0 to 100 with the name EXAM0000.SPA.

CurComponents This command reports the components available in the current method. The result string is reported in the Result Current parameter.

Syntax: CurComponents

Remarks: Available only if you have the QuantPad software installed.

Example: ExecuteOMNIC “CurComponents”

CurrentYLimits This command finds the current Y-axis limits of the active spectral window. The limits are placed into the Result Array parameter. The format of Result Array is: the lower Y-axis limit, a comma, and the upper Y-axis limit.

Syntax: CurrentYLimits

Remarks: When no windows are open, the Result Array parameter is set to 0.0, 100.0.

Example: ExecuteOMNIC “CurrentYLimits”

Explanation: The Y-axis limits are placed into the Result Array parameter.

CustomRamanX This command shifts the selected spectra by the frequency specified in the macro or input by the operator.

Syntax: CustomRamanX [<Laser frequency>]

Arguments: The <Laser frequency> argument is required unless you use the Invoke keyword. If you use the Invoke keyword, the argument, if provided, is used to initialize the dialog box.

Remarks: This command is available for the FT-Raman system only.

Example: ExecuteOMNIC “CustomRamanX”

CustomScale This command sets the Y-axis display limits of the currently selected spectra in the active window. This is legal only if the current window is a spectral window (that is, created with the NewWindow command). Can be used with no arguments if the Invoke keyword is specified.

Syntax: CustomScale <Bottom limit> <Top limit>

Arguments: The arguments are required unless the Invoke keyword is used. When Invoke is used, the arguments are ignored.

Example: ExecuteOMNIC "CustomScale 0.0 1.1"

Explanation: If the selected spectrum is in absorbance, the ordinate scale is changed to 0.0 to 1.1 absorbance units when this command is issued.

Cut This command sends the cut message to the window that has input focus.

Syntax: Cut

Remarks: Probably not useful from DDE. See also CutSelectedSpectra.

Example: Cut

Explanation: A Cut operation is performed on the active window. If the active window is a text window, the selected text is cut. If the active window is a spectral window, the selected spectra are cut.

CutSelectedSpectra This command cuts the selected spectra to the Clipboard.

Syntax: CutSelectedSpectra

Remarks: Places all selected spectra onto the Clipboard and removes them from the active spectral window. This can be used in preparation for pasting spectra into other spectral windows or other Windows programs such as a word processor.

Example: ExecuteOMNIC "CutSelectedSpectra"

Delay This command causes a delay in the execution of a macro.

Syntax: [invoke] delay milliseconds [NOCANCEL] [<ReasonForDelay>]

Arguments: When the Invoke keyword is not used, the command will delay for the specified number of milliseconds and then return success. When the Invoke keyword is used, the command opens a modal dialog box that counts down the number of seconds remaining in the delay. When the specified number of milliseconds have elapsed, the dialog box will close automatically, and the command will complete with success.

The dialog box has a Cancel button that will close the dialog box before the specified time has elapsed. If the Cancel button is used to close the dialog box, the command completes with an error code rather than success.

If the optional argument "NOCANCEL" is specified, the Cancel button will be disabled so that the dialog box cannot be closed before the specified time has elapsed.

The optional <ReasonForDelay> argument allows for a text string to be displayed on the dialog that explains why the delay is being done.

Remarks: This command is intended to be used where other ways of delaying the execution of a macro are not supported.

The delays that are specified are approximations only. There are many factors that can affect how soon (in milliseconds) resolution is achieved.

Examples: Delay 10000

Invoke Delay 5000

Invoke Delay 20000 "Wait for mirror to move into the correct position"

Invoke Delay 7500 NOCANCEL "Wait for detector to stabilize"

Invoke Delay 2500 NOCANCEL

(Continued on next page)

Explanations: The first example causes a delay of 10 seconds without displaying a dialog box.

The second example causes a delay of 5 seconds, and displays a dialog that allows the user to cancel operation. No explanation of the reason for the delay is provided.

The third example causes a delay of 20 seconds, and displays a dialog that allows the user to cancel operation. An explanation of the reason for the delay is provided.

The fourth example causes a delay of 7.5 seconds, and displays a dialog that does not allow the user to cancel operation. An explanation of the reason for the delay is provided.

The fifth example causes a delay of 2.5 seconds, and displays a dialog that does not allow the user to cancel operation. No explanation of the reason for the delay is provided.

DeleteAnnotation

This command deletes annotation from the currently selected spectra.

Syntax: DeleteAnnotation <Region start> <Region end>

Arguments: Both arguments are required. The arguments specify the starting and ending locations for the region. All of the annotation between the two locations is deleted.

Example: ExecuteOMNIC "DeleteAnnotation 3200 2700"

Explanation: All annotation, including text and peak labels, between 3200 and 2700 wavenumbers is deleted.

DeleteRegion

This command deletes a selection of spectra from the currently selected series file. The range is selected in time. The spectra are removed but the reconstructions are not modified.

Syntax: DeleteRegion <StartDeleteTime> <EndDeleteTime>

Example: ExecuteOMNIC “DeleteRegion 1.0 3.2”

Explanation: Removes spectra from the series file from time 1.0 to 3.2 minutes.

DeleteSelAnnotation

This command deletes the annotation contained in the selection box.

Syntax: DeleteSelAnnotation

Example: ExecuteOMNIC “DeleteSelAnnotation”

Explanation: The selection tool must be used to select the text to be deleted before this command is executed.

DeleteSelectedSpectra

This command clears the selected spectra from the active window. Legal only if the active window is a spectral window. This is similar to the CutSelectedSpectrum command except that the data is not placed onto the Clipboard.

Syntax: DeleteSelectedSpectra

Example: ExecuteOMNIC "DeleteSelectedSpectra"

Explanation: The selected spectra are deleted.

DeleteSpectrum

This command clears the selected spectrum from the window. Can be used on spectra in spectral windows and in the invisible DDE window. This is similar to the CutSelectedSpectrum command except that in this case the data is not placed onto the Clipboard. Same as the DeleteSelectedSpectra command except DeleteSpectrum also clears the invisible DDE window.

Syntax: DeleteSpectrum

Example: ExecuteOMNIC "DeleteSpectrum"

Explanation: The selected spectra are cleared from the active window.

DeleteStandard FromMethod

This command deletes one or more standards from the currently selected quant method. If all of the standards are deleted, the associated library may optionally be deleted.

Syntax: DeleteStandardFromMethod <Std#1> (<Std#2> <Std#3> ...
<Std#20>)
DeleteStandardFromMethod ALL [LIBRARYDELETE]

Parameters: <Std#n> is the number of a standard that will be removed from the current quant method. As many as 20 specific standards may be deleted in one call to this command. This number corresponds to the value in the Index column of the Standards table on the Standards tab when the method is opened in TQ Analyst. ALL is used to indicate that all of the standards should be removed from the current quant method. LIBRARYDELETE is used with ALL to indicate that the library into which the standard spectra are written should be deleted when all of the spectra are removed from the method.

Remarks: When this command is executed, the current quant method becomes uncalibrated. The EDIT option should have been specified when the method was opened, since this command will attempt to automatically rewrite the method to the disk.

Examples: DeleteStandardFromMethod 2
DeleteStandardFromMethod 1 2 3 4
DeleteStandardFromMethod ALL
DeleteStandardFromMethod ALL LIBRARYDELETE

Explanation: The first example removes standard 2 from the currently selected quant method. The second example removes standards 1, 2, 3 and 4 from the currently selected quant method. The third example sets the number of standards in the current quant method to zero. These standards remain in the method library. The final example sets the number of standards in the current quant method to zero and deletes the method library.

Deresolve This command changes the data spacing of the selected spectrum to that specified by the argument. If the command is used with the Invoke keyword, the Change Data Spacing dialog box appears, and the macro pauses until the dialog box is closed. Only one spectrum may be selected for this command to work.

Syntax: Deresolve <New data spacing>

Arguments: The desired data spacing must be specified if the command is not used with Invoke. The data spacing can be increased or decreased.

Examples: ExecuteOMNIC “Deresolve 16”

ExecuteOMNIC “Invoke Deresolve”

Explanation: In the first example, the selected spectrum is changed to 16-wavenumber data point spacing and the result is placed into the same spectral window as the selected spectrum. In the second example, the Change Data Spacing dialog box appears; the macro pauses until the dialog box is closed.

Derivative This command calculates the first or second derivative of the selected spectrum and produces a new spectrum. If the command is used with the Invoke keyword, the Derivative dialog box appears. Only one spectrum may be selected for this command to work.

Syntax: Derivative { FIRST | SECOND }

Arguments: The argument specifies the type of derivative to be calculated. Either FIRST or SECOND must be specified.

Examples: ExecuteOMNIC “Derivative Second”

ExecuteOMNIC “Invoke Derivative”

Explanation: In the first example, the second derivative of the selected spectrum is calculated, and the result is placed into the same spectral window as the selected spectrum. In the second example, the Derivative dialog box appears; the macro pauses until the dialog box is closed.

Display This command moves all spectra from the hidden DDE window to the currently active spectral window or the specified spectral window. Spectra are put into the hidden DDE window when data collection is done using CollectBackground or CollectSample without the Auto keyword.

Syntax: Display
or
Display <Window Title>

Arguments: The <Window Title> argument is the title of window to be selected. This is the text displayed in the title bar of the spectral window.

Example: ExecuteOMNIC "Display"

Explanation: The spectra in the hidden DDE window are added to the active spectral window.

or

Example: ExecuteOMNIC "Display Window12"

Explanation: The spectra in the hidden DDE window are added to the specified spectral window (Window12).

DisplayBackground This command displays the current background in the active spectral window.

Syntax: DisplayBackground

Remarks: The background used to ratio sample spectra is typically not viewed in a spectral window. This command brings the hidden background into the active spectral window.

Example: ExecuteOMNIC "DisplayBackground"

DisplayLimits

This command sets the X-axis and Y-axis display limits.

Syntax: DisplayLimits <X Start> <X End> [<Y Start> <Y End>]

or

Invoke DisplayLimits [<X Start> <X End> [<Y Start> <Y End>]]

Arguments: Can be used with only X limits or with X and Y limits. Cannot be used with just Y limits (use the CustomScale command for this). If <XStart> is specified, <XEnd> must be; the same is true for <YStart> and <YEnd>. If the command is used with the Invoke keyword, no arguments are required.

Remarks: If the parameter ScaleAll (Display group) is set to TRUE, the Y limits will be applied to all spectra. If it is false, the Y limits will be applied to the selected spectra only.

Example: ExecuteOMNIC “DisplayLimits 1000 800 0 1”

Explanation: This example sets the X-axis limits to 1000-800 and the Y-axis limits to 0 and 1.

DisplayReference

This command displays the spectral quality reference spectrum currently being used. If no reference spectrum is stored in the experiment file, no spectrum will be displayed.

Syntax: DisplayReference

Arguments: None.

Remarks: Must have a reference spectrum in the experiment to view the reference.

Example: ExecuteOMNIC “DisplayReference”

Explanation: Makes a copy of the current reference spectrum and adds it to the active spectral window.

DisplaySetup

This command displays the Display Setup dialog box. The macro then stops until the dialog box is closed. This command must be used with the Invoke keyword because it displays an interactive dialog box.

Syntax: Invoke DisplaySetup

Remarks: If you are using an Almega spectrometer, you should use the VrDisplaySetup command instead.

Example: ExecuteOMNIC “Invoke DisplaySetup”

Explanation: Causes the Display Setup dialog box to be displayed until the macro stops or until the operator closes the dialog box.

DisplayWhiteLight

This command shows the white light correction curve for the currently selected grating.

Syntax: displaywhitelight

Remarks: This command is available only for Almega spectrometers. It lets you save a white light correction curve and use it later with the Reprocess or Other Corrections commands.

Example: ExecuteOMNIC “ displaywhitelight “

DoContour

This command shows the contour map for the currently selected series file. Will create a contour map from the contour setup information if a map does not exist on the disk already.

Syntax: DoContour

Remarks: See SwitchToWaterfall to show the waterfall rather than the contour map.

Examples: ExecuteOMNIC “DoContour”

ExecuteOMNIC “SwitchToWaterfall”

Explanation: The first example shows a contour map. Adding the second command switches to the waterfall display.

DoesFileExist This command determines whether a specified file or group of files exists in a specified path.

Syntax: DoesFileExist[<Filename>]

Arguments: Filename is the full path of the specified file. Wild cards can be used.

Remarks: The result is returned in the Result Current parameter. 1 is returned if the file exists. 0 is returned if the file does not exist.

Examples: ExecuteOMNIC “DoesFileExist ““c:\my documents\absorb.spa”””
ExecuteOMNIC “DoesFileExist ““c:\my documents\omnic\
➔spectra\data*.spa”””

Explanation: The first example checks for the existence of one file. Note that the extra quotation marks are required because the pathname includes a space. The second example checks for the existence of multiple files that start with “data”.

EditMenu This command displays the Edit Menu dialog box.

Syntax: Invoke EditMenu

Remarks: Must be invoked or an error is generated.

Example: ExecuteOMNIC “Invoke EditMenu”

Explanation: The Edit Menu dialog box is displayed.

EditToolbar This command displays the Edit Toolbar dialog box.

Syntax: Invoke EditToolbar

Remarks: Acts like it was invoked even if the Invoke keyword is not present.

Example: ExecuteOMNIC “Invoke EditToolbar “

Explanation: The Edit Toolbar dialog box is displayed.

EnableLogin This command turns OMNIC's log-in feature on or off.

Syntax: EnableLogin {On|Off|Toggle}

Arguments: On setting: When you start OMNIC, the software asks you to enter a user name. (If the configuration associated with the entered name has a password, you are asked to enter it as well.) The software then loads the configuration.

Off setting: When you start OMNIC, you are not asked to enter a name or password.

Toggle setting: Reverses the current state of the log-in feature. That is, if it is currently on, it will be turned off.

Example: ExecuteOMNIC "EnableLogin On"

Explanation: This example turns OMNIC's log-in feature on.

EnableRaman This command switches data collection mode from IR to Raman or from Raman to IR.

Syntax: EnableRaman {Raman|IR}

Example: EnableRaman Raman

Explanation: Causes OMNIC to switch from IR data collection mode to Raman collection mode.

Exit This command quits the OMNIC application.

Syntax: Exit

Example: ExecuteOMNIC "Exit"

Explanation: Causes the OMNIC application to close.

ExperimentSetup

This command opens the Experiment Setup dialog box to allow editing of current collect, bench and spectral quality parameters, and to perform diagnostic tests.

Syntax: ExperimentSetup

Arguments: None.

Remarks: This command opens the current experiment parameters. If you are using an Almega spectrometer, you should use the VrmExperimentSetup command instead.

Example: ExecuteOMNIC “Invoke ExperimentSetup”

ExperimentWindow

This command performs an operation on the line in the OMNIC display that shows the experiment information.

Syntax: ExperimentWindow [Status | Hide | Show]

Parameters: Status returns the current status of the Experiment drop-down list box in the OMNIC window. If the Experiment drop-down list box is visible, the contents of Result Current will be “visible”. If the Experiment drop-down list box is not visible, the contents of Result Current will be “invisible”.

Hide causes the Experiment drop-down list box to become invisible in the OMNIC window. The contents of Result Current become “hide”.

Show causes the Experiment drop-down list box to become visible in the OMNIC window. The contents of Result Current become “show”.

Export This command saves the selected spectrum on a disk. The operator will be prompted for a filename only if necessary. Can be used to save spectra in any file format (such as .tif and .csv). See the SaveGroup command to save spectral groups.

Syntax: Export [<Filename>]

Arguments: The <Filename> argument will be used if specified. If it is not specified and the selected spectrum does not already have a save filename, the operator will be prompted for a filename. By specifying the extension (for example, .TIF or .CSV), you can specify the save format.

Example: “Export C:\OMNIC\SPECTRA\NEWFILE.SPA”

Explanation: Saves the active spectrum as a file named newfile.spa, which is located in the OMNIC\SPECTRA directory.

ExportAs This command displays the Save As dialog box, which allows the user to save the selected spectrum on a disk. Always prompts for a filename. Must be used with the Invoke keyword.

Syntax: Invoke ExportAs [<Filename>]

Arguments: If the <Filename> argument is supplied, it will be the default specified in the prompt.

Examples: ExecuteOMNIC “Invoke ExportAs”

ExecuteOMNIC “Invoke ExportAs
➔C:\OMNIC\SPECTRA\NEWFILE.SPA”

ExecuteOMNIC “Invoke ExportAs C:\OMNIC\NEW.JDX”

Explanation: The first example displays the Save dialog box.

The second example displays the dialog box with the filename specified in the command as the current choice.

The third example saves the selected spectrum as a JCAMP-DX file in the OMNIC directory.

ExportProfile

This command saves the profile in the current map window on a disk in CSV format using the specified filename.

Syntax: ExportProfile [<Filename>]

Arguments: The <Filename> argument will be used if specified and the command is not invoked. It is the name of the file in which the data will be saved.

Remarks: Applies to Atlus systems only.

Examples: ExecuteOMNIC “Invoke ExportProfile”

ExecuteOMNIC “ExportProfile
➤““C:\OMNIC\ATLUS\PROFILE1.CSV”””

Explanation: The first example opens the file dialog box to input a filename to use for saving the profile. When the dialog box is closed, the profile is saved in CSV format. The second example saves the profile in CSV format with the filename C:\OMNIC\ATLUS\PROFILE1.CSV.

ExportProfileToGrams

This command exports a map to GRAMS/3D®. A map file must be open and in the active window. The command starts the program C:\GRAMS3D\3DNIC.EXE. It then sends DDE messages to tell the GRAMS/3D program which map file to load. [Application = Grams3D; Topic = Data; Command = OpenFile(“ <Filename> “)]

Syntax: ExportProfileToGrams

Arguments: There are no arguments. This command can be invoked, but the result is the same as when not invoked.

Example: ExecuteOMNIC “ExportProfileToGrams”

ExportSeriesToGrams

This command exports a series file to GRAMS/3D. A series file must be open and in the active window. The command starts the program C:\GRAMS3D\3DNIC.EXE. It then sends DDE messages to tell the GRAMS/3D program which series file to load.

[Application = Grams3D; Topic = Data; Command = OpenFile("<Filename> ")]

Syntax: ExportSeriesToGrams

Arguments: There are no arguments. This command can be invoked, but the result is the same as when not invoked.

Example: ExecuteOMNIC "ExportSeriesToGrams"

ExtractInterferogram

This command extracts the attached interferogram if the currently selected spectrum has saved interferograms.

Syntax: ExtractInterferogram [{Back|Background|Both}]

Arguments: With no argument, the sample interferogram is extracted. If the optional keyword Back or Background is specified, the background interferogram is extracted.

Remarks: The extracted interferogram is displayed in the active window. If the selected spectrum does not have attached interferograms, an error message will appear.

Example: ExtractInterferogram Back

Explanation: The interferogram of the background is retrieved from the spectrum object and added to the active window.

ExtractLineMap

This command extracts from the currently displayed area map a set of spectra forming a line map in a new window. The X and Y start and end positions of the line to be extracted are supplied in the command. A new window is then created showing the selected spectra in a line map format. See the Atlus manual or Help system for descriptions of the Extract Line Map command. This should be used only for vertical or horizontal lines.

Syntax: `ExtractLineMap <Xstart> <Ystart> <Xend> <Yend>`

Arguments: The X and Y start values specify the starting position of the extraction in the units of the map. The X and Y end values specify the ending position of the extraction in units of the map.

Remarks: Applies to Atlus systems only.

Examples: `ExecuteOMNIC "Invoke ExtractLineMap"`
`ExecuteOMNIC "ExtractLineMap 2 50 148 50"`

Explanation: The first example displays a dialog box allowing input of the X and Y positions of the start and end of the line. The second example takes the sample.map file and extracts a set of spectra along the line with a start of X = 2 and Y = 50 to the end X = 148 and Y = 50. Displays the result in a new window.

ExtractMapSpectrum

This command extracts a single spectrum from the currently displayed map file and displays the spectrum in the specified window. The index and window title must be supplied. The index defines the spectrum to be extracted. This command has no invocable dialog box. If the keyword BKG1 is used instead of an index, the current background will be displayed. The first spectrum always has an index of 1. Use the TranslateCoordToSpectrumIndex command to determine the index of the spectrum.

Syntax: ExtractMapSpectrum <index> <window title>

Arguments: The <index> argument is either a number starting at 1 to the number of spectra or the keyword BKG1 for the background spectrum. The <window title> argument is the window into which the spectrum will be placed.

Remarks: Applies to Atlus systems only.

Examples: ExecuteOMNIC "ExtractMapSpectrum 100 Window1"
ExecuteOMNIC "ExtractMapSpectrum BKG1 Window1"

Explanation: The first example extracts the spectrum at the index 100 from the map file and displays it in Window1. The second example extracts the background spectrum from the map file and displays it in Window1.

ExtractSpectrum

This command extracts a single coadded spectrum from the current series data set and places it into a spectral window.

Syntax: `ExtractSpectrum <Time> [<WindowTitle>]`

Arguments: The <Time> argument is the collection time of the spectrum in the series you want to retrieve. This argument is in the same X-axis unit as the reconstructions in the currently selected Series Reconstruction window. The <WindowTitle> argument is optional. This is the title of the window where you want the extracted spectrum to be placed. If the <WindowTitle> argument is not supplied, the extracted spectrum will be placed into the spectral data display of the series reconstruction window. If you use the <WindowTitle> argument, you must supply the <Time> argument also.

Remarks: A series reconstruction window must be the selected window before this command is sent. Each spectrum in a series data set is the result of coadding Collect NumScans scans during the series collection. Use the CoaddRegion command to coadd several individual spectra from a series data set.

Example: `ExecuteOMNIC "ExtractSpectrum 3.54 ""Sample 3 Spectra"""`

Explanation: Extracts the spectrum collected at 3.54 minutes from the current series data set. This spectrum is added to the window having the title "Sample 3 Spectra".

FirstWaterfall

This command sets the waterfall display to the first spectrum in the series file. Valid only if the waterfall display is open and its window is active. See also NextWaterfall.

Syntax: `FirstWaterfall`

Example: `ExecuteOMNIC "FirstWaterfall"`

FSD This command performs a Fourier self-deconvolution on the selected spectrum.

Syntax: Invoke FSD [<Bandwidth>[<Enhancement>]]

Arguments: <Bandwidth> and <Enhancement>

Examples: ExecuteOMNIC “FSD 20 3.0”
ExecuteOMNIC “invoke FSD”

Explanation: The first example places the currently selected spectrum into the Fourier Self-Deconvolution window and sets the Bandwidth parameter to 20 and the Enhancement parameter to 3.0. The bandwidth must be specified to specify the enhancement. If this command is issued when an FSD window is already open, the existing FSD window is brought to the front. The second example opens the FSD window with the selected spectrum and pauses the macro until the operator closes the FSD window.

FullScale This command sets the Y-axis mode of the active window to Full Scale.

Syntax: FullScale

Remarks: Use FullScale to adjust the vertical scale of the spectra in the active spectral window so that they fill their panes.

Example: ExecuteOMNIC “FullScale”

Explanation: The Y-axis of the active window is set to Full Scale.

FWHH This command stands for Full Width at Half Height. It calculates the width of a peak at the mid point of the peak intensity in a region of the selected spectrum.

Syntax: FWHH

Parameters: Uses the Display RegionStart and Display RegionEnd parameters of the active window if they are not zero. If they are both zero, the Display XStart and Display XEnd parameters are used instead.

Remarks: Useful for determining spectral resolution for gas phase spectroscopy. The result can be obtained by getting the parameter Result Array or Result Current. The format of the Result Current parameter is shown below.

Range:2981.751 <tab> 2900.603
FWHH: 31.62855

Example: ExecuteOMNIC “FWHH”
Text1.Text = GetOMNIC(“result current”)

Explanation: In this example the result is retrieved and placed in the Visual Basic text box entitled Text1.

GenerateProfile

This command generates a profile using the active map window data. Places the result in the map window.

Syntax: `GenerateProfile [Profile Type] [<Profile Information>]`

Arguments: The Profile Type is a string describing the type of profile that will be generated. One of the following strings must be used.

- 1 “Chemigram”
- 2 “Peak height of one peak”
- 3 “Peak area of one peak”
- 4 “Peak area of one peak”
- 5 “Peak area ratio of two peaks”
- 6 “Quant result of one component”
- 7 “Functional group”
- 8 “Correlation map”

Each profile has a set of parameters that need to be present. In the case of two sets of parameters, the first set is the numerator, and the second set is the denominator.

- | | | | | |
|---|--------------------------------|-------------------------|---------------------------------|---------------|
| 1 | Start region | End region | Start baseline | End baseline |
| 2 | Peak position | | Start baseline | End baseline |
| 3 | Peak position | | Start baseline | End baseline |
| | Peak position2 | | Start baseline2 | End baseline2 |
| 4 | Start region | End region | Start baseline | End baseline |
| 5 | Start region | End region | Start baseline | End baseline |
| | Start region2 | End region2 | Start baseline2 | End baseline2 |
| 6 | 0 based quant component number | | | |
| 7 | USER or PREDEFINED | | 0 based functional group number | |
| 8 | FILE | filename of spectrum | <i>or</i> | |
| | SPECTRUM | 1 based spectrum number | | |

Remarks: Applies to Atlas systems only. The active window must be a map window.

Example: `ExecuteOMNIC “GenerateProfile chemigram 2800 3200 2800 3200”`

Explanation: Create a Chemigram profile using the currently displayed map.

GetBaseline CorrectedSpectrum

This command applies the defined baseline to the selected spectrum and creates a new spectrum as a result.

Syntax: GetBaselineCorrectedSpectrum

Remarks: See also InitializeManualBaseline and AddBaselinePoint.

Example: ExecuteOMNIC “GetBaselineCorrectedSpectrum”

Explanation: A new spectrum is created with the defined baseline.

GetContourParams

This command moves the parameters used in the Contour/Waterfall Setup dialog box from the current contour/waterfall window to the global PROFILE parameter set.

Syntax: GetContourParams

Arguments: None.

Remarks: The active window must be a Series contour/waterfall window. The parameters moved are in the PROFILE parameter set. They are:

DispValueScale	0 is linear contour; 1 is log contour
DispMinValue	Minimum contour reconstruct value
DispMaxValue	Maximum contour reconstruct value
CollectAutoScale	TRUE or FALSE
WFallMinValue	Waterfall spectrum Y minimum
WFallMaxValue	Waterfall spectrum Y maximum
WFallDispDir	0 = Forward, 1 = Reverse waterfall display

See SetupContourGlobal and SetContourParams.

Example: ExecuteOMNIC “Invoke GetContourParams”

Explanation: Moves the parameters used in the Contour/Waterfall Setup dialog box from the current contour/waterfall window to the global PROFILE parameter set. The parameters are the ones used in the Contour/Waterfall Setup dialog box.

GetCurrentUserName

This command returns the name of the currently logged in user.

Syntax: GetCurrentUserName

Arguments: The result is returned in the Result Current parameter. When logging is not enabled, the user name entered when the software was installed is returned.

Examples: ExecuteOMNIC “GetCurrentUserName”

Explanation: The name of the current user is returned in the Result Current parameter.

GetExperimentList

This command returns the information contained in the main OMNIC Experiment drop-down list box. You can select either the list of titles or list of filenames.

Syntax: GetExperimentList [Filenames] [Titles]

Arguments: Filenames returns experiment list filenames. Titles returns experiment list titles.

Remarks: Only experiments currently contained in the drop-down list box are listed. If any are added later, the list must be read again.

Examples: ExecuteOMNIC “GetExperimentList filenames”

ExecuteOMNIC “GetExperimentList titles”

Explanation: The first example returns the list of the full filenames for all the experiments in the Experiment drop-down list box in Result Current. The filenames are separated by a return character. The second example returns the list of the titles for all the experiments in the Experiment drop-down list box in Result Current. The titles are separated by a return character.

GetLibSpectrum

This command extracts a spectrum from a spectral library to the currently active OMNIC spectral window.

Syntax: `GetLibSpectrum <Index number> [<Library filename>] [Directory path]`

Arguments: The index number of the spectrum to be displayed must be specified. The library filename is optional. If no filename is specified, the currently opened spectral library is used. The directory path optional argument is the directory where the library resides. If the path is not specified, the library path will be controlled by the current options settings.

Examples: `ExecuteOMNIC "GetLibSpectrum 2"`
`ExecuteOMNIC "GetLibSpectrum 23 SEA002D"`

Explanation: The first example retrieves spectrum number two from the currently open spectral library. The second example retrieves the twenty-third spectrum from the library with the filename SEA0002D. This library also becomes the open library.

GetLibSpectrumTitle

This command puts the title of the library spectrum having the specified index number into Result Current. If no filename is specified, the currently opened spectral library is used.

Syntax: `GetLibSpectrumTitle <Index number> [<Library filename>]`

Arguments: The index number of the spectrum to get the title for must be specified. The library filename is optional. If no filename is specified, the currently opened spectral library is used.

Examples: `ExecuteOMNIC "GetLibSpectrumTitle 2"`
`Text1.Text=GetOMNIC ("Result Current")`
`ExecuteOMNIC "GetLibSpectrumTitle 23 SEA002D"`
`Text1.Text=GetOMNIC ("Result Current")`

Explanation: The first example retrieves the title of spectrum number two from the current spectral library. The second example retrieves the twenty-third spectrum from the SEA0002D library, which becomes the open library. In both examples the titles are placed in Visual Basic text boxes by getting the title from the Result Current parameter.

GetMapParams

This command moves parameters used in the map Contour/Waterfall Setup dialog box from the current map window to the global PROFILE parameter set.

Syntax: GetMapParams

Arguments: None.

Remarks: Applies to Atlas systems only. The active window must be a map window. The parameters moved are in the PROFILE parameter set. They are:

DispValueScale	0 is linear contour; 1 is log contour
DispMinValue	Minimum contour reconstruct value
DispMaxValue	Maximum contour reconstruct value
CollectAutoScale	TRUE or FALSE
WFallMinValue	Waterfall spectrum Y minimum
WFallMaxValue	Waterfall spectrum Y maximum
WFallDispDir	0 = Forward, 1 = Reverse waterfall display
BitMapAnnotation	TRUE or FALSE
UseGrayScale	TRUE or FALSE
FillLevel	0, 2, 4, 6, 8, 10 levels of fill for contour
Display3D	TRUE or FALSE

Example: ExecuteOMNIC “Invoke GetMapParams”

Explanation: Moves parameters from the PROFILE parameter set in the active map window to the global PROFILE parameter set. The parameters are the ones in the map Display Options dialog box.

GetSignatureInfo

This command reads the digital signature in a file. Available only with ValQ DS.

Syntax: GetSignatureInfo <FileName> <History> [<Index>]

Arguments: FileName is the full path and file name of the file for which you want to retrieve signature information. (Note that Thermo Nicolet files and JCAMP files are the only file types supported.) The History parameter is nonzero to read all signatures from the file, or zero to read only the current signature from the file. The Index parameter specifies which item in a multiple-item file (such as a spectral group (.SPG) or a report notebook (.NBK) file) to read. Omitting Index, or setting it to -1, will read from only the first item in a multiple-item file.

Remarks: The returned result is a string, stored in Result Current, containing either an error message or the signature information requested. (Note that this function differs from VerifyFile in that it does not read every byte of the file and calculate the special cryptographic number. It simply reads text information about the signature or signature history.)

Example: ExecuteOMNIC "GetSignatureInfo c:\temp\signme.spa 0"

Explanation: The signature history contains only those signatures that have been made since the last time the file was changed. If three people sign a file, but the file is then changed and signed by a fourth person, only the fourth person's signature is stored in the current signature and the signature history. If a signed file is changed and is not signed again after the change, the previous signature will be destroyed and there will not be a signature history. This is because a digital signature is valid only if the file has not changed since the moment it was signed. (For additional information, refer to the Verify File and Sign File commands.)

GetStoredPhaseArray This command retrieves the phase array set for use by the OMNIC FFT functions and displays it in the active window. It can then be saved as a file and used again.

Syntax: `GetStoredPhaseArray`

Remarks: For use with the collect parameter `UseStoredPhaseArray` and the `StorePhaseArray` command. When the parameter `UseStoredPhaseArray` is True, the stored phase array will be used for phase correction instead of a phase array calculated from the data being transformed. When `UseStoredPhaseArray` is False, a new phase array is calculated as part of the FFT process and is set as the stored phase array. A phase array from a file can be used by reading the file into OMNIC as a spectrum and issuing the `StorePhaseArray` command. The `UseStoredPhaseArray` parameter must also be set or the stored array will be overwritten by the next FFT. The invoked version of this command has no user interface.

Example: `ExecuteOMNIC "GetStoredPhaseArray"`

Explanation: The current phase array is retrieved and displayed in the active window.

GetVRMResolution This command is used with Atlas for Almega.

Syntax: `getvmresolution`

Remarks: The approximate spectral resolution is returned in the Result Current parameter as a string that includes units (nm or cm⁻¹). If the final format is pixels or Raman (nanometers), the resolution will be specified in nanometers. If the final format is Raman (wavenumbers) or Shifted Raman, the resolution will be specified as a range of wavenumber values because the resolution varies across the spectrum.

Example: `ExecuteOMNIC "getvmresolution"`

GetVRMScanTime

This command is used with Atlus for Almega.

Syntax: `getvrmscantime`

Remarks: The approximate time for a single scan is returned in the Result Current parameter as a string where the units are seconds. If the current experiment calls for multiple grating positions, the time includes the exposure time for each grating position and the grating repositioning times. the camera readout time is also included.

Example: `ExecuteOMNIC "getvrmscantime"`

GetVersionInfo

This command puts version information about OMNIC DLLs in the parameter Result Current.

Syntax: `GetVersionInfo`

Example: `ExecuteOMNIC "GetVersionInfo"`

Explanation: Version information is now stored in Result Current.

GtBeamsplitter

This command reads the currently selected beamsplitter and puts its name and slot number into the Result Current parameter.

Syntax: `GtBeamsplitter`

Remarks: The result is obtained by getting the Result Current parameter. The format of the Result Current result is shown below.

KBr 1

Example: `ExecuteOMNIC "GtBeamsplitter"`

GtBeamsplitterList

This command reads the list of currently configured beamsplitters and puts their names and slot numbers into the Result Current parameter.

Syntax: GtBeamsplitterList

Arguments: None.

Remarks: The result is obtained by getting the Result Current parameter. The format of the Result Current result is shown below.

KBr 1

Example: ExecuteOMNIC “GtBeamsplitterList”

GtDetector

This command reads the currently selected detector and puts its name and beampath into the Result Current parameter.

Syntax: GtDetector

Remarks: The result is obtained by getting the Result Current parameter. The format of the Result Current result is shown below.

MCT/B BackMain

Example: ExecuteOMNIC “GtDetector”

GtDetectorList

This command reads the list of all available detectors and puts their names and beampaths into the Result Current parameter.

Syntax: GtDetectorList

Remarks: The result is obtained by getting the Result Current parameter. The format of the Result Current result is shown below.

FrontMain DTGS KBr

BackMain MCT/B

Example: ExecuteOMNIC “GtDetectorList”

HelpFTIRTheory This command starts the “Beginner's Guide to FT-IR” tutorial.

Syntax: HelpFTIRTheory

Example: ExecuteOMNIC “HelpFTIRTheory”

HelpGettingStarted This command starts the on-line Help application with the “Quick Collect” topic.

Syntax: HelpGettingStarted

Example: ExecuteOMNIC “HelpGettingStarted”

HelpHardware This command starts the hardware Help application for the current spectrometer.

Syntax: HelpHardware

Example: ExecuteOMNIC “HelpHardware”

HelpIndex This command starts the on-line Help application starting at the “Contents” topic.

Syntax: HelpIndex

Example: ExecuteOMNIC “HelpIndex”

HelpLearnCollect This command starts the “Collecting a Spectrum” tutorial.

Syntax: HelpLearnCollect

Example: ExecuteOMNIC “HelpLearnCollect”

HelpMBHATR This command starts the ARK Multi-Bounce HATR accessory tutorial.

Syntax: HelpMBHATR

Example: ExecuteOMNIC “HelpMBHATR”

HelpSBHATR This command starts the Single-Bounce/Multi-Bounce HATR accessory tutorial.

Syntax: HelpSBHATR

Example: ExecuteOMNIC “HelpSBHATR”

HelpSpectrometerTour This command starts the “Spectrometer Tour” tutorial for the current spectrometer.

Syntax: HelpSpectrometerTour

Example: ExecuteOMNIC “HelpSpectrometerTour”

HelpTechSupport This command starts the tutorial or Help application describing sources of technical support.

Syntax: HelpTechSupport

Example: ExecuteOMNIC “HelpTechSupport”

HelpUsingHelp This command starts the on-line Help application at the “Using Help” topic.

Syntax: HelpUsingHelp

Example: ExecuteOMNIC “HelpUsingHelp”

HideSelectedSpectra

This command hides the currently selected spectra in the active spectral window.

Syntax: HideSelectedSpectra

Example: ExecuteOMNIC “HideSelectedSpectra”

Import

This command reads in a data file and displays it in the active spectral window. If used with the Invoke keyword, this command will prompt the operator for the filename of the file to be read in.

Syntax: Import [<Filename>]

Arguments: The <Filename> argument is the name of the file to read in and can include a full path. If the Invoke keyword is used, <Filename> is used as the default in the Open File dialog box.

This command also supports *.CSV files. These are text files containing X,Y data pairs. The format of such files is one data point (X,Y pair) per line with the X and Y values separated by spaces, a comma or a {tab} character. The X values precede the Y values on each line and must be in order (increasing or decreasing from the start to the end of the file). They need not be exactly equally spaced, but typically they are within the resolution of the data.

If the command is invoked with a *.CSV file, the Parameters dialog box is displayed. If the command is not invoked, the default values are used. These are: spectrum title = filename; X-axis units = data points (if X values are integers) or wavenumber; Y-axis units = %T.

Examples: ExecuteOMNIC “Invoke Import”

ExecuteOMNIC “Import C:\OMNIC\SPECTRA\ABSORB.SPA”

ExecuteOMNIC “Import C:\OMNIC\SPECTRA\FIRST.SPG”

Explanation: The first example causes the Open dialog box to appear, and the operator selects spectra to be opened interactively. The second and third examples define exactly the spectrum and spectral group to open respectively.

InitializeManualBaseline This command clears the current manual baseline definition so a new baseline can be defined.

Syntax: InitializeManualBaseline

Remarks: See also AddBaselinePoint and GetBaselineCorrectedSpectrum.

Example: ExecuteOMNIC “InitializeManualBaseline”

InputA This command changes the state of the External A Input option.

Syntax: InputA [0 | 1]

Arguments: If the argument to this command is 0, the External A Input option will be turned off (unchecked). If it is 1, it will be turned on (checked). If no argument is provided or if the Invoke keyword is used, the state of the option is toggled (checked <-> unchecked).

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. This command can be used in a macro to enable or disable input from a detector connected to the Detector A BNC connector on the SST module.

Example: ExecuteOMNIC “InputA 1”

InstrumentCorrect This command performs an instrument correction on the selected Raman spectra.

Syntax: InstrumentCorrect [<Reference filename>]

Arguments: Can be used with or without the Invoke keyword. If the Invoke keyword is used, the Instrument Correct dialog box will appear, allowing the operator to specify whether to use the current reference or a stored reference. If the Invoke keyword is not used, a stored reference file can be specified; if no reference is specified, the current reference will be used.

Example: ExecuteOMNIC “InstrumentCorrect”

Invoke The Invoke keyword allows you to specify interactive operation for other commands. When used with commands like CollectSample or Subtract, the interactive versions of these commands are “invoked.” This means that when the Invoke keyword is used, the Collect Sample window appears during data collection, and the Subtract window appears and allows you to perform interactive subtraction. When used with commands like Average, the result will be shown to the operator in a dialog box, even though there is no equivalent menu command. When Invoke is used with a command, the execution of the code pauses until the operator closes the interactive window or dialog box. The Invoke keyword also affects how error messages are handled. If the command is used without this keyword, errors are stored and must be retrieved by getting the value of the parameter Result Error. When the Invoke keyword is used, these errors are displayed to the operator and a response is required.

Syntax: Invoke <Command> [Argument 1] [Argument 2] ...

Arguments: Any command, followed by the arguments needed by that command.

Example: ExecuteOMNIC “Invoke ExportAs”

Explanation: Displays the save file dialog box. The macro pauses until the dialog box is closed.

LaserAdjustment This command adjusts the limits of the selected spectrum to match spectra that were collected using the specified new laser frequency.

Syntax: LaserAdjustment <NewLaserFreq>

Arguments: The new laser frequency value is required.

Example: ExecuteOMNIC “LaserAdjustment 15798.2”

Explanation: The spectrum that was collected and processed using a frequency of 15798.0, for example, would be converted to be the same as if it were collected with a frequency of 15798.2.

ListAllLibraries

This command creates a list of all libraries on the system. The first library in the list is selected and can be queried through the Library Parameter group. You can select other libraries in the list with the SelectLibrary command.

Syntax: ListAllLibraries [User | Search | Compare | Scrapbook | Turbo]

Arguments: If the keyword User is specified, only user libraries are listed. Search causes only Search libraries to be listed. Compare causes only QC libraries to be listed. Scrapbook causes only Scrapbook libraries to be listed. Turbo causes only TQ Analyst libraries to be listed. If none of these arguments is included, then all of the libraries are listed.

Example: ExecuteOMNIC “ListAllLibraries”

Explanation: Generates a list of all available libraries. See the Visual Basic Example #8-LIB.VBP and Example #9-RAMANLIB.VBP for examples of how to use this command.

ListSetupLibraries

This command creates a list of the libraries that are currently selected using the Search Setup dialog box. The first library in the list is selected and can be queried through the library group parameters. You can select other libraries in the list with the SelectLibrary command.

Syntax: ListSetupLibraries [Compare | Search]

Parameters: Compare causes the setup libraries for QC Compare to be listed. Search causes the setup libraries for Search to be listed. If no argument is included with the command, Search is the default.

Example: ExecuteOMNIC “ListSetupLibraries”

Explanation: Generates a list of all of the libraries selected using the Search Setup dialog box.

ListSpectra This command creates a list of the spectra in the active spectral window.

Syntax: ListSpectra [Selected]

Remarks: The number of spectra in the list is returned in the Result Current parameter.

Examples: ExecuteOMNIC “ListSpectra”
ExecuteOMNIC “ListSpectra Selected”

Explanation: In the first example, the list contains all of the spectra in the currently selected window. In the second example only the spectra that are selected are added to the list. Note that spectra added to or deleted from the window after the command is issued do not affect the list. See also SelectListSpectrum.

LoadConfiguration This command loads a menu and toolbar configuration file.

Syntax: LoadConfiguration [<Configfile> [<Password>]]

Remarks: If the command is not invoked, a <ConfigFile> must be specified. If the configuration file is password protected and no password is provided with the command, the user will be prompted for a password even in the non-invoked case.

Examples: ExecuteOMNIC “Invoke LoadConfiguration”
ExecuteOMNIC “LoadConfiguration
➔C:\OMNIC\PARAM\DEFAULT.CON”

Explanation: The first example causes the Open dialog box to appear, and the operator selects the configuration file to be opened interactively. The second example defines exactly the configuration file to be opened.

LoadGasParamSet This command loads a QuantPad parameter set from the disk. This is not an OMNIC parameter set.

Syntax: LoadGasParamSet <filename>

Remarks: Available only if you have QuantPad software installed.

Example: ExecuteOMNIC "LoadGasParamSet
C:\OMNIC\PARAM\MYPARAM.EXP"

Explanation: Loads parameters from the disk.

LoadOptions This command loads an option file.

Syntax: LoadOptions [<Optional Filename>]

Arguments: If the command is invoked, a dialog box is displayed. If the command is not invoked, the filename argument is required.

Example: ExecuteOMNIC "Invoke LoadOptions"

Explanation: The Open dialog box is displayed in order to allow the user to select an option file for opening. When a file is selected, the option settings are read from the file and become the current options.

Note Since the release of OMNIC 4.0, the LoadOptions command is obsolete. This command is still supported for previous versions of OMNIC.

LoadParameters

This command loads the specified parameter groups from a file.

Syntax: LoadParameters [<Filename>] [Series] [Search] [Collect] [Bench]
[KeepBkg]

Arguments: All of the arguments are optional. The filename can be a full path. Any or all of the parameter groups (Series, Search, Collect or Bench) can be specified. The order in which the groups are specified is not important. If no groups are specified, all groups are read.

Example: ExecuteOMNIC "LoadParameters
C:\OMNIC\PARAM\DIFFUSE.EXP Search Collect"

Explanation: In this example a parameter set called diffuse.EXP is read from the OMNIC\PARAM directory. Only the Search and Collect parameters are read from the complete set of parameters.

LocateMinMax

This command calculates the minimum and maximum Y-axis values in a region of the selected spectrum and lists the X-axis locations of those values. The results are put into the Result Current and Result Array parameters.

Syntax: `LocateMinMax`

Parameters: Uses the Display RegionStart and Display RegionEnd parameters of the active spectral window if they are not zero. If both are zero, the Display XStart and Display XEnd parameters are used instead.

Remarks: The result is obtained by getting the Result Current or Result Array parameter. The format of the Result Current parameter is shown below.

```
Range: 1950.019 1874.104  
Minimum Value: 0.07378  
Minimum Position: 1911.14075  
Maximum Value: 0.20173  
Maximum Position: 1941.99670
```

Example: `ExecuteOMNIC "LocateMinMax"`
`Text1.Text = GetOMNIC("Result Array")`

Explanation: The first command locates the minimum and maximum Y-axis values. Since no display regions are specified, the minimum and maximum in the entire display pane are determined. The second command puts the results in the Text1.Text text box.

Login This command lets you log in as the current user of OMNIC.

Syntax: [Invoke] Login [<UserName>]

Arguments: The <UserName> argument is the name you want to log in as. This must be one of the user names already known to OMNIC. When you log in, OMNIC loads the configuration that is associated with <UserName>. This sets up the menus, the toolbar and the software options according to your preferences. When the Invoke keyword is used, the OMNIC log-in dialog box will be displayed.

Examples: ExecuteOMNIC “Login Cody”
ExecuteOMNIC “Invoke Login”

Explanation: The first example changes the current user of OMNIC to Cody and loads the configuration file associated with this user name. The second example displays the OMNIC log-in dialog box to let the user enter a name.

Note OMNIC's log-in feature must be enabled for this command to work. If the configuration associated with the user is password protected, the user will be prompted for the password during this command.

MacroIlluminator This command specifies if the Almega macro illuminator assembly should be in or out of the beam path during Collect Sample operations.

Syntax: MacroIlluminator {In|Out}

Arguments: The word “in” or “out” must be used as an argument.

Remarks: Normally, the macro illuminator assembly is out of the beam path during Collect Sample operations. This assembly also contains a neon lamp. By placing the assembly in the beam path and turning on the neon lamp (VRM NeonBulb parameter), you can collect a neon spectrum.

Example: ExecuteOMNIC “MacroIlluminator In”

Explanation: Moves the Almega macro illuminator assembly into the beam path during subsequent Collect Sample operations.

MapReprocess This command allows the current map data set to be reprocessed. Must be used with the Invoke keyword.

Syntax: Invoke MapReprocess

Remarks: The map data set must be collected with the Collect FinalFormat parameter set to Interferogram or SingleBeam to allow reprocessing. A map data set can be reprocessed only one time. When the operator closes the dialog box, the macro will continue. The original interferogram or single-beam data is overwritten with the Final Format data.

Example: ExecuteOMNIC “Invoke MapReprocess”

MapSetupGlobal This command shows the map display options using the global set of parameters. The active window does not need to be a map window for this command to function. The parameters will not change any active map windows. The parameter Global must be sent to access the global parameters.

Syntax: MapSetupGlobal Global

Arguments: Global. Must be there to access global parameters.

Remarks: Accesses only global profile parameter set.

Example: ExecuteOMNIC “MapSetupGlobal global”

Explanation: Shows dialog box for map setup using the global profile parameter set.

MatchScale This command sets the Y-axis mode of the active window to Match Scale.

Syntax: MatchScale

Remarks: Same as Match Scale in the View Menu.

Example: ExecuteOMNIC “MatchScale”

Explanation: Displays all the spectra in a spectral window using the minimum and maximum Y values of the selected spectrum as Y-axis display limits.

Match SpectrumSettings

- This command sets the collect parameters to be as close as possible to the parameters used to collect the selected spectrum.
- Syntax: MatchSpectrumSettings
- Remarks: This is the same as Match Spectrum Settings in the Collect menu. If you are using an Almega spectrometer, you should use the VrmMatchSettings command instead.
- Example: ExecuteOMNIC “MatchSpectrumSettings”
- Explanation: Sets the parameters in the Experiment Setup dialog box to the values that were used to collect the selected spectrum.

MaximizeWindow

- This command causes a window to be maximized.
- Syntax: MaximizeWindow [<Window title>]
- Arguments: If the window title is specified, that window is maximized. If no window title is specified, the entire OMNIC window is maximized.
- Examples: ExecuteOMNIC “MaximizeWindow Window4”
ExecuteOMNIC “MaximizeWindow”
- Explanation: In the first example the spectral window titled “Window4” is maximized to fill the OMNIC application window.
In the second example the OMNIC application window is maximized to fill the complete monitor display range.

MinimizeWindow

This command causes a window to be minimized.

Syntax: MinimizeWindow [<Window title>]

Arguments: If the window title is specified, that window is minimized; otherwise, the entire OMNIC window is minimized.

Examples: ExecuteOMNIC “MinimizeWindow Window4”
ExecuteOMNIC “MinimizeWindow”

Explanation: In the first example the spectral window titled “Window4” is minimized to an icon in the OMNIC application window. In the second example the OMNIC application window is minimized to an icon.

MinMax

This command calculates the minimum and maximum Y-axis values in a region of the selected spectrum.

Syntax: MinMax

Parameters: Uses the Display RegionStart and Display RegionEnd parameters of the active window if they are not zero. If they are both zero, the Display XStart and Display XEnd parameters are used instead.

Remarks: The result is obtained by getting the parameter Result Array or Result Current. The format of the Result Current result is shown below.

Range: 1374.507 <tab> 1170.307

Min: 98.03974

Max: 99.96780

Example: ExecuteOMNIC “MinMax”
Text1.Text = GetOMNIC(“result current”)

Explanation: Puts the region endpoints and the maximum and minimum ordinate values for the selected spectrum into the Result Array or Result Current parameter. The second line in the example returns this information into a Visual Basic text box called Text1.

MixQuad This command displays the Phase Analysis dialog box.

Syntax: MixQuad

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. This command can be used in a macro when the operator desires to interactively mix two quadrature spectra. Before executing the MixQuad command, the two spectra to be mixed must have been opened and selected in the current OMNIC window. When the operator closes the dialog box, the macro will continue.

Example: ExecuteOMNIC “Invoke MixQuad”

MoveWindow This command moves a window to the specified location.

Syntax: MoveWindow <X location> <Y location> [<Window title>]

Arguments: The X and Y locations specify the position of the upper-left corner of the window. If the window title is specified, the X and Y location are relative to the entire OMNIC window. If the window title is not specified, the entire OMNIC window is moved to the X and Y relative to the upper-left corner of the screen.

Examples: ExecuteOMNIC “MoveWindow 0 0 Window4”

ExecuteOMNIC “MoveWindow 620 460”

Explanation: In the first example the spectral window titled “Window4” is moved to the upper-left corner of the OMNIC application window. In the second example the OMNIC application window is moved so that the top is at pixel location 620, and the left edge is at pixel location 460.

Multiply This command multiplies the entire spectrum by a factor and produces a new spectrum in the active spectral window.

Syntax: Multiply <Factor>

Arguments: The <Factor> argument is required if the Invoke keyword is not used. If the Invoke keyword is used, the given factor is the default value in the prompt.

Examples: ExecuteOMNIC “Multiply 8”
ExecuteOMNIC “Invoke Multiply 4”

Explanation: In the first example the selected spectrum is multiplied by 8, and the resulting spectrum is added to the current window. In the second example, the Multiply dialog box appears with a default factor of 4. The operator is prompted to either accept this factor or to enter a new factor.

NewDetTrace This command creates a new reconstruction and adds it to the current series reconstruction window.

Syntax: NewDetTrace <Title>

Arguments: The <Title> argument is the title to give to the new reconstruction.

Remarks: The new reconstruction contains the same data as the Gram-Schmidt reconstruction. This new reconstruction is selected when the command completes. Follow this command with the SetDataArray OmTalk statement to add a time-based trace to the current series reconstruction window.

Example: ExecuteOMNIC “NewDetTrace ““TGA Weight Loss”””
SetDataArray

Explanation: Adds a new reconstruction having the title “TGA Weight Loss” to the current series reconstruction window. Places the current contents of the DataArray() array into the new reconstruction trace.

NewLogin This command lets you add a name as a user of OMNIC.

Syntax: [Invoke] NewLogin [<NewUserName>]

Arguments: The <NewUserName> argument is the name you want to add to OMNIC's user log-in list. The Select Configuration File dialog box is displayed to let you associate a configuration file with the new user name. When the Invoke keyword is used, the OMNIC Add User Name dialog box will be displayed so that the user may enter a new name.

Examples: ExecuteOMNIC "NewLogin Cody"
ExecuteOMNIC "Invoke NewLogin"

Explanation: The first example adds the name Cody to the list of OMNIC user names. The second example displays the OMNIC Add User Name dialog box to let the user enter a new name. In both examples, the Select Configuration File dialog box is displayed.

Note OMNIC's log-in feature must be enabled for this command to work.

NewNotebook

This command creates a new notebook to hold reports.

Syntax: NewNotebook <File name>
Invoke NewNotebook

Arguments: The <File name> argument is the full DOS path and filename of the notebook file to be created. A filename must be specified if the Invoke keyword is not used. Use the Invoke keyword with no filename to display the Enter A New Report Notebook Name dialog box.

Examples: ExecuteOMNIC "NewNotebook C:\OMNIC\REPORT\LAB.NBK"
ExecuteOMNIC "AddToNotebook C:\OMNIC\REPORT\
➔LAB.NBK ""First entry"""
ExecuteOMNIC "Invoke NewNotebook"

Explanation: The first example creates a new report notebook file named LAB.NBK in the OMNIC\REPORT directory, then adds a report to this new notebook. The second example displays the Enter A New Report Notebook Name dialog box, which prompts for a notebook filename.

NewTemplate

This command creates a new report template and displays it in the Report Template window.

Syntax: Invoke NewTemplate

Arguments: Returns an error if not invoked.

Examples: ExecuteOMNIC "Invoke NewTemplate"
ExecuteOMNIC "Invoke NewTemplate C:\OMNIC\REPORT\
➔SEARCH1.RPT"

Explanation: The first example displays the Select, Edit, Or Create A New Report Template dialog box, and the operator chooses Create to create a template interactively. The second example defines exactly the template file to be created.

NewWindow This command creates a new spectral window.

Syntax: NewWindow [<Window title>]

Arguments: If the window title is not specified, a default title is generated. If the Invoke keyword is used, the title is used as the default entry in the prompt.

Examples: ExecuteOMNIC "NewWindow ""First Analysis Window""
ExecuteOMNIC "NewWindow"
ExecuteOMNIC "Invoke NewWindow ""First Analysis Window""

Explanation: In the first example a new spectral window with the title "First Analysis Window" is created. In the second example a new spectral window is created and a default sequence title such as "Window12" is assigned as the title. In the third example, the New Window dialog box is displayed with "First Analysis Window" used as the default title. The creation of the new window is controlled by the current options settings.

NextWaterfall This command selects the next spectrum in the series file for the waterfall display and will step to the next spectrum if no value is passed in. If a value is passed in, the display will step by the specified amount within the limits of the series file. The value may be negative or positive. (See also FirstWaterfall.)

Syntax: NextWaterfall [<StepIncrement>]

Examples: ExecuteOMNIC "NextWaterfall"
ExecuteOMNIC "NextWaterfall 10"
ExecuteOMNIC "NextWaterfall -10"

Explanation: The first example steps to the next spectrum in the series file. The second example steps forward by ten spectra in the series file. The third example steps backwards by ten spectra in the series file.

- NormalizeSpectrum** This command normalizes a set of spectra.
- Syntax: NormalizeSpectrum
- Remarks: An absorbance spectrum is automatically scaled between 0 and 1 absorbance unit, and a % transmittance spectrum is automatically scaled between 10%T and 100%T.
- Example: ExecuteOMNIC “NormalizeSpectrum”
-
- OffsetScale** This command displays the spectra in the active spectral window vertically offset from each other.
- Syntax: OffsetScale
- Remarks: Same as Offset Scale in the View Menu. Immediately after you use OffsetScale, the Y-axis is accurate only for the lowest spectrum in the window.
- Example: ExecuteOMNIC “OffsetScale”
- Explanation: Separating the spectra in this way allows you to compare their spectral features at any frequency.
-
- Omnimode** This command switches the OMNIC modes so that toolbars, menus or both are not displayed.
- Syntax: OmnicMode [Simple | Normal | Toolbar]
- Arguments: Simple mode does not show the toolbar or menu. Normal mode always shows the menu and will show the toolbar if Toolbar is checked in the View menu. Toolbar mode shows the toolbar but not the menu.
- Example: ExecuteOMNIC “Omnimode Simple”
- Explanation: Changes the display to show neither the toolbar nor the menu.

OpenDataSet This command opens a series data set and makes its window the current series reconstruction window. If this command is used with the Invoke keyword, the operator will be prompted to select one of the available series titles.

Syntax: `OpenDataSet [<Filename>]`

Arguments: Optional filename of a series data set. If a filename is used, it must be the full DOS path and filename rather than a title. The Invoke keyword is ignored if a filename is supplied.

Examples: `ExecuteOMNIC "Invoke OpenDataSet"`

`ExecuteOMNIC "OpenDataSet
C:\OMNIC\SERIES\EXAMPLE.SRS"`

Explanation: The first example displays the Select Data Set dialog box that allows the user to select an existing series to work with. The second example opens the series data set having the filename EXAMPLE.SRS located in the OMNIC\SERIES directory.

OpenLibrary This command opens a library for the operations AddToLibrary, TextSearch and ViewLibrary. It is not necessary to use the OpenLibrary command to search a spectral library.

Syntax: `OpenLibrary [<Library Filename>]`

Arguments: If the filename is not specified, the selected library is opened (see the SelectLibrary command).

Remarks: OpenLibrary does not affect the Library group parameter values. Use the SelectLibrary command to update these parameters.

Examples: `ExecuteOMNIC "ListAllLibraries"`

`ExecuteOMNIC "SelectLibrary 3"`

`ExecuteOMNIC "OpenLibrary"`

`ExecuteOMNIC "OpenLibrary SEA002D"`

Explanation: In the first example, the third library in the list generated by the ListAllLibraries command is opened. In the second example the library with the filename SEA002D is opened. The SEA*** type filenames refer to the OMNIC libraries.

OpenMap This command opens a specified map file and displays the last profile. The operator will be prompted to select one of the available map files.

Syntax: OpenMap [<Filename>]

Arguments: Optional filename of a map file. If a filename is used, it must be the full DOS path and filename rather than a title. The Invoke keyword is ignored if a filename is supplied.

Remarks: Applies to Atlas systems only.

Example: ExecuteOMNIC “Invoke OpenMap”

Explanation: This example displays the dialog box that allows the user to select an existing map file to work with.

OpenReport This command opens the report file for new data. All data previously in the report file is overwritten, if the file already exists. Results of all Quantify commands will be reported in the file until the CloseReport command is executed.

Syntax: OpenReport

Remarks: Available only if you have QuantPad software installed.

Example: ExecuteOMNIC “OpenReport”

Options This command displays the Options dialog box. Must be invoked.

Syntax: Options

Example: ExecuteOMNIC “Invoke Options”

Explanation: The Options dialog box is displayed.

OtherConversions

This command applies the specified conversion to the selected spectrum. The converted result replaces the original selected spectrum.

Syntax: OtherConversions [Kubelka-Munk | Photoacoustic | %Reflectance | Log(1/R) | Wavenumbers <spacing> | Micrometers <spacing> | Nanometers <spacing>]

Remarks: When using Almega spectrometers, you should use the VrOtherConversions command instead.

Arguments: One of the arguments listed is required, unless the Invoke keyword is used. If one of the X-axis unit conversions is specified, the desired data point spacing of the resulting spectrum must be specified.

Examples: ExecuteOMNIC “OtherConversions Kubelka-Munk”
ExecuteOMNIC “OtherConversions %Reflectance”
ExecuteOMNIC “OtherConversions Micrometers 0.005”
ExecuteOMNIC “Invoke OtherConversions”

Explanation: The first example converts the selected spectrum to Kubelka-Munk units. The second example converts the spectrum to % reflectance. The original spectrum is not retained. The third example converts a spectrum with wavenumber as its X-axis unit into one with micrometer as its unit. The last example presents the operator with the Other Conversions dialog box of choices.

OtherCorrections

This command applies the specified correction to the selected spectrum. The corrected result is added to the window containing the original selected spectrum.

Syntax: OtherCorrections { Dispersion | ATR | H2O | CO2 | “H2O and CO2” }

Remarks: When using Almega spectrometers, you should use the VrOtherCorrections command instead.

Arguments: One of the two arguments listed is required, unless the Invoke keyword is used.

Examples: ExecuteOMNIC “OtherCorrections Dispersion”
ExecuteOMNIC “OtherCorrections ATR”
ExecuteOMNIC “Invoke OtherCorrections”

Explanation: The first example applies the dispersion (Kramers-Kronig) transformation to the selected spectrum. The second example multiplies the selected spectrum by a ramp function to eliminate the depth of penetration variation related to the attenuated total reflection (ATR) effect. The original spectrum is not retained. The last example presents the operator with the Other Corrections dialog box of choices.

Paste

This command pastes spectral data from the Clipboard into the active spectral window. Has no effect if the Clipboard does not contain spectral data or if the active window is not a spectral window.

Syntax: Paste

Remarks: Can be used to move data from one window to another. First select the original spectrum (or spectra) and perform a Cut or Copy operation to put spectral data onto the Clipboard. The data can now be pasted into a new spectral window.

Example: ExecuteOMNIC “Paste”

PasteFocus This command sends the paste message to the window that has input focus.

Syntax: PasteFocus

Remarks: This allows you to paste text into the collection and processing information for a spectrum or as annotation. See also Paste.

Example: PasteFocus

Explanation: A pasting operation is performed on the active window. If the active window is a text window, the selected text is cleared. If the active window is a spectral window, the selected spectra are cleared.

PasteImage This command pastes an image of the spectral data on the Clipboard into the active spectral window. Has no effect if the Clipboard does not contain spectral data or if the active window is not a spectral window.

Syntax: PasteImage

Remarks: Can be used to move data from one window to another. First select the original spectrum (or spectra) and perform a Cut or Copy operation to put spectral data onto the Clipboard. The data can now be pasted into a different spectral window. The difference between this command and Paste is that image spectra are dynamically linked to the original. Changes such as baseline correction or smoothing performed on one spectrum will also affect the image spectra.

Example: ExecuteOMNIC "PasteImage"

PASUnits This command changes the Y-axis units of the selected spectrum to photoacoustic units.

Syntax: [invoke] PASUnits

Arguments: None

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. See the description of the Set Photoacoustic Units command in SST Help Topics.

PeakHeight This command calculates the height of the spectrum at the given location.

Syntax: PeakHeight [<Peak location>] [Shift]

Arguments: Both arguments are optional. If the peak location is not specified, the current setting of the Display XCrossHairLoc parameter is used. If the peak location is specified, it is used to set Display XCrossHairLoc. The Shift keyword will seek the peak closest to the specified peak location. Shift works only if the peak location is within the current X-axis display limits.

Parameters: Display XCrossHairLoc.

Remarks: The resulting peak height is returned in the Result Current parameter in the following format:
X:3026.534 Y:0.977
The parameter Result Array returns only the numerical values separated by the list character.

Examples: ExecuteOMNIC "PeakHeight 3033 Shift"
SetOMNIC "Display XCrossHairLoc", 2922
ExecuteOMNIC "PeakHeight"
Text1.Text = GetOMNIC("Result Current")

Explanation: The first example finds the height of the peak closest to 3033 wavenumbers. The second example uses the SetOMNIC subroutine to set the XCrossHairLoc parameter, sends the command to obtain the peak height, and then retrieves the result and puts it into a Visual Basic text box named Text1.

PeakPick This command finds the peaks above the specified threshold. The peak list is placed into the parameters Result Array and Result Current. The Result Current parameter has the following format:

Fri Jan 29 14:04:18 1997

FIND PEAKS:

<tab> Spectrum: <tab> Aromatic Compound

<tab> Region: 3224.841 <tab> 2672.697

<tab> Absolute threshold: <tab> 0.40000

<tab> Sensitivity: <tab> 50

<tab> Peak list:

<tab> <tab> Position: <tab> 3026.603 <tab> Intensity: <tab> 0.977

<tab> <tab> Position: <tab> 3062.250 <tab> Intensity: <tab> 0.603

<tab> <tab> Position: <tab> 3084.728 <tab> Intensity: <tab> 0.467

Syntax: PeakPick <Threshold> <Sensitivity>

Arguments: The <Threshold> and <Sensitivity> arguments must be specified unless the command is used with the Invoke keyword. The peak labels are added directly to the selected spectrum without operator interaction. If the command is used with the Invoke keyword, the interactive Find Peaks window is displayed.

Examples: ExecuteOMNIC "Invoke PeakPick"
ExecuteOMNIC "PeakPick 50 70"
Text1.Text = GetOMNIC("Result Current")

Explanation: In the first example, the selected spectrum is placed into the interactive Find Peaks task window, and the operator must adjust the parameters and close the window before the macro will continue. In the second example, the spectrum's peaks are automatically labeled with the threshold and sensitivity set to 50 and 70, respectively. The peak results are added directly to the selected spectrum and the text output for the peak labeling operation is retrieved into the Visual Basic text field Text1.

PEMod This command displays the PhotoElastic Modulation setup dialog box or sets the system to PEM step-scan mode.

Syntax: PEmod

Arguments: When the command is given in a macro with the Invoke keyword, the macro pauses until the operator completes changes to the parameters and closes the PhotoElastic Modulation setup dialog box by choosing OK. If the command is given without the Invoke keyword, the system is just put into PhotoElastic Modulation collect mode.

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. If, before giving this command, the scan control word is **not** set to 4, the latest PEM parameters will be loaded. If it is set to 4, any parameters set via macro commands will be retained. In any case, when the dialog box is closed (by choosing OK, if the command is invoked), the parameters will be saved as the latest PEM step-scan parameters, the macro will continue with the scan control word set to 4, and SST data collection will be enabled.

Example: ExecuteOMNIC "PEMod"

PhaseMod This command displays the Phase Modulation setup dialog box or sets the system to PM step-scan mode.

Syntax: Phasemod [Phase]

Arguments: When the command is given in a macro with the Invoke keyword, the macro pauses until the operator completes changes to the parameters and closes the Phase Modulation setup dialog box by choosing OK. If the command is given without the Invoke keyword but followed by the word Phase, the PM step-scan setup dialog box will be called, one survey scan will be collected, and the optimum demodulation phase angle will be determined. If the command is given without either the Invoke or Phase keywords, the system is just put into Phase Modulation step-scan mode.

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. If, before giving this command, the scan control word is not set to 11, the latest PM step-scan parameters will be loaded. If it is set to 11, any parameters set via macro commands will be retained. In any case, when the dialog box is closed (by choosing OK, if the command is invoked), the parameters will be saved as the latest PM step-scan parameters, the macro will continue with the scan control word set to 11, and SST data collection will be enabled.

Example: ExecuteOMNIC "Phasemod Phase"

PhaseOps This command displays the Phase Array operations dialog box.

Syntax: PhaseOps

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. This command can be used in a macro when the operator wants to use any of the phase array operations the PhaseOps command contains in an interactive mode. Depending on the operation to be performed, before executing the PhaseOpsf command, an appropriate interferogram or phase array must have been opened and selected in the current OMNIC window. When the operator closes the dialog box, the macro will continue.

Example: ExecuteOMNIC “Invoke PhaseOps”

Note Except for the Calculate Phase Array operation, all of the other functions in this dialog box are also accessible by other DDE calls (GetStoredPhaseArray, StorePhaseArray and UseStoredPhaseArray).

Polling This command causes OMNIC to complete, or close, the DDE conversation as soon as the command is initiated. Without this keyword, OMNIC holds on to the DDE conversation until the command has finished executing and then closes the conversation.

Syntax: <Command> [Arg1] [Arg2] Polling

Example: ExecuteOMNIC “CollectSample Auto Polling”

Execute other Visual Basic code here while data collection is in progress.

While GetOMNIC (“MenuStatus CollectSample”) = “Disabled”

 'Loop here until data collection is finished.

 DoEvents

Wend

ExecuteOMNIC “Display”

Explanation: Starts a sample data collection and immediately returns to Visual Basic to execute code while data collection is in progress. The While loop tests the state of the Menu to find out when data collection has completed. Because the Auto keyword is used and the Invoke keyword is not used with the CollectSample command, no prompts or data collection window is displayed. This effectively “hides” data collection. The Display command is used at the end to add the newly collected spectrum to the active window.

PreviewReport This command displays the Preview/Print Report window using the current template.

Syntax: PreviewReport

Arguments: When the Invoke keyword is used, the Preview/Print Report window remains displayed until the operator closes it. If the Invoke keyword is not used, the window is displayed and then automatically closed.

Example: ExecuteOMNIC “PreviewReport”

Print This command prints the spectra in the active window. Can be used with the Invoke keyword.

Syntax: Print [NONE | NOPAGECHECK] [TOFILE [<fn>]]

Remarks: The print command takes an optional "TOFILE" argument and an optional filename. If you specify TOFILE, and not invoke, the filename is required. When you specify TOFILE and don't invoke the command, the print is done to the specified file. When you do invoke the command, the "Print to file" checkbox is checked in the dialog presented to the user.

The optional "NONE" keyword on the print command is used only when the search results are being printed. It prevents the dialog that allows the user to check what part of the search options should be printed from being displayed.

The "NOPAGECHK" is also only used when printing search results. It disables the check box that allows the user to indicate that the different parts of the search window should be printed on separate pages.

Examples: ExecuteOMNIC "Print"
ExecuteOMNIC "Invoke Print"

Explanation: In the first example the spectra in the active window are printed without operator interaction.

In the second example the Print dialog box appears and the macro pauses until this dialog box is closed by the operator.

PrintReport This command prints a report using the current template.

Syntax: PrintReport

Arguments: All fields in the report are populated with the current values (such as search results or a peak table).

Examples: ExecuteOMNIC "PrintReport"
ExecuteOMNIC "Invoke PrintReport"

Explanation: In the first example the report is printed without operator interaction. In the second example the Print dialog box appears and the macro pauses until this dialog box is closed by the operator.

PrintSetup This command allows the operator to configure a printer through the standard setup dialog box. Must be used with the Invoke keyword.

Syntax: Invoke PrintSetup

Example: ExecuteOMNIC "Invoke PrintSetup"

Explanation: Displays the Print Setup dialog box; the macro waits until the dialog box is closed to continue.

Quantify This command performs a quantitative analysis using the currently selected quant method. The source of the spectrum may be the currently selected spectrum or the spectrum given in the command line, or the spectrum may be selected from the Open dialog box.

Syntax: [Invoke] Quantify [<PathLength>] [<FileName> [NOLOG]]
[Invoke] Quantify [<PathLength>] [PROMPT [NOLOG]]

Parameters: The <PathLength> argument is the pathlength value that may be necessary to perform a quantitative analysis. This is necessary if the pathlength type is Known. The <FileName> argument is the name of the spectrum file that will be quantified. PROMPT implies that the spectrum file will be determined from the Open dialog box. NOLOG prevents the results window from being shown, even if the Invoke keyword is used.

Examples: ExecuteOMNIC “invoke Quantify”
ExecuteOMNIC “invoke Quantify 2.0”
ExecuteOMNIC “Quantify C:\OMNIC\SPECTRA\ABCD.SPA”
ExecuteOMNIC “invoke Quantify PROMPT”
ExecuteOMNIC “invoke Quantify PROMPT NOLOG”

Explanation: The first example performs a quantitative analysis on the currently selected spectrum using the currently selected quant method. The second example is the same as the first but sets the pathlength equal to 2.0 to complete this analysis. The third example performs a quantitative analysis on the ABCD.SPA spectrum using the currently selected quant method. It does not show the analysis results window at the end of the analysis. The fourth example performs a quantitative analysis using the currently selected quant method. It prompts for the spectrum file that will be used. The final example prompts the user for a spectrum file to use with the Quantify command but does not display the results window.

QuantifyMultiple

This command quantifies a set of spectra. The spectral filenames may be read from a text file or selected from an OMNIC Open dialog box. Produces an output report of all of the quantify results.

Syntax: [Invoke] QuantifyMultiple [<InputTextFile> [<OutputTextFile>]]

Parameters: The <InputTextFile> argument is the full pathname of a text file containing the list of spectra to be quantified. If this field is not present, the command must be invoked to display the Open dialog box. The <OutputTextFile> argument is the full pathname of the text file that contains the report containing the concentration values. If this field is not present, the text is written to the file QUANTIFY.TXT or QUANTIFY.XLS. (This depends on the setting for the QuantifyMultiple entry in the [Files] section of turboq.ini.)

The Invoke keyword causes the <OutputTextFile> to be opened when the command finishes. If the <OutputTextFile> has an Excel extension (for example, output.xls), Excel is launched to display the output file. Otherwise, the system text editor (for example, Notepad or WordPad) is launched to display the output file.

An example of the format specifications for the <InputTextFile> argument is shown below. See the TQ Analyst on-line Help under Multiple Quantify for more information on formatting.

File header information

Index		Spectrum file name		Pathlength
1	{ tab }	tqx_sb1.spa	{ tab }	1.0
2	{ tab }	tqx_sb2.spa	{ tab }	1.0
3	{ tab }	tqx_sb3.spa	{ tab }	1.0

TQ Analyst starts reading the first line that begins with a “1”. Any information that is placed at the top of the file is ignored. The Pathlength column is required only when the TQ Analyst method specifies a known pathlength.

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Examples: ExecuteOMNIC “QuantifyMultiple C:\WINWORD\INPUT.TXT
➔C:\WINWORD\OUTPUT.TXT”
ExecuteOMNIC “Invoke QuantifyMultiple”
ExecuteOMNIC “Invoke QuantifyMultiple
➔C:\WINWORD\INPUT.TXT C:\WINWORD\OUTPUT.TXT”

Explanation: The first example quantifies the spectral files listed in the file C:\WINWORD\INPUT.TXT and writes the results to the file C:\WINWORD\OUTPUT.TXT. The output file is not displayed.

The second example displays an OMNIC Open dialog box for file selection. When the dialog box is closed, the macro quantifies the selected files, writes the results to the default output file QUANTIFY.TXT or QUANTIFY.XLS and displays the output file using Notepad or Excel.

The final example quantifies the spectral files listed in the file C:\WINWORD\INPUT.TXT, writes the results to the file C:\WINWORD\OUTPUT.TXT and displays the output file using Notepad or Excel.

QuantifyValidate

This command quantifies a fixed set of spectra (where the filenames and expected concentrations are read from a text file). Produces an output report comparing the calculated and the expected concentration values.

Syntax: [Invoke] QuantifyValidate [<InputTextFile> [<OutputTextFile>]

Parameters: The <InputTextFile> argument is the full pathname of a text file containing the list of spectra being quantified. The expected concentrations are listed with the spectrum filename. If this field is not present and the command is invoked, the filename may be selected from an Open dialog box.

The <OutputTextFile> argument is the full pathname of the text file that contains the report comparing the calculated and the expected concentration values. If this field is not present, the text is written to the file VALID.TXT or VALID.XLS. (This depends on the setting for the QuantifyMultiple entry in the [Files] section of turboq.ini.)

If the command is invoked, the final report is automatically opened when the command is terminated. An example of the format specifications for the <InputTextFile> argument is shown below. See the TQ Analyst on-line Help under External Validation for more information on formatting.

File header information

Index	Spec file name	Pathlength	C1	C2	C3
1 {tab}	pls01.spa {tab}	1.0 {tab}	1.94 {tab}	0.99 {tab}	1.92 {cr}{lf}
2 {tab}	pls02.spa {tab}	1.0 {tab}	1.26 {tab}	0.50 {tab}	4.01 {cr}{lf}
3 {tab}	pls03.spa {tab}	1.0 {tab}	2.59 {tab}	0.57 {tab}	1.49 {cr}{lf}

TQ Analyst starts reading the first line that begins with a “1”. Any information that is placed at the top of the file is ignored. The Pathlength column should be included only when the TQ Analyst method specifies a known pathlength.

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Examples: ExecuteOMNIC “QuantifyValidate C:\WINWORD\INPUT.TXT
➔C:\WINWORD\OUTPUT.TXT”
ExecuteOMNIC “Invoke QuantifyValidate”
ExecuteOMNIC “Invoke QuantifyValidate
➔C:\WINWORD\INPUT.TXT C:\WINWORD\OUTPUT.TXT”

Explanation: The first example quantifies the spectral files listed in the file C:\WINWORD\INPUT.TXT and writes the results to the file C:\WINWORD\OUTPUT.TXT. The output file is not displayed.
The second example displays an OMNIC Open dialog box for file selection. When the dialog box is closed, the macro quantifies the selected files, writes the results to the default output file VALID.TXT or VALID.XLS and displays the output file using Notepad or Excel.
The final example quantifies the spectral files listed in the file C:\WINWORD\INPUT.TXT, writes the results to the file C:\WINWORD\OUTPUT.TXT and displays the output file using Notepad or Excel.

QuantReport

This command displays the QuantPad report setup dialog box. This is used to define the parameters for the report storing during the quantitative operations.

Syntax: QuantReport
Remarks: Available only if you have QuantPad software installed.
Example: ExecuteOMNIC “Invoke QuantReport”

QuantSetup This command opens a quant method for use in performing a quantitative analysis on an unknown spectrum. All arguments to this command are optional.

Syntax: [Invoke] QuantSetup [<FileName>] [EDIT] [BENCH]
[COLLECT]

Parameters: The <FileName> argument is the name of the method file that contains the quant method that will be loaded. If the command is not invoked, this automatically causes the method to be loaded. If the command is invoked, this is the default filename given to the Open dialog box.

EDIT must be specified if any subsequent command modifies the quant method. For example, if you intend to use the commands AddStandardToMethod, DeleteStandardFromMethod, ReplaceStandardInMethod or SetUsageForStandard, you must include the EDIT keyword. If you do not, the method will not be rewritten.

BENCH indicates that the bench parameters should be included with the method when it is opened.

COLLECT indicates that the collect parameters should be included with the method when it is opened.

Examples: ExecuteOMNIC “Invoke QuantSetup”

ExecuteOMNIC “Invoke QuantSetup
C:\OMNIC\QUANT\PLS.QNT COLLECT”

ExecuteOMNIC “QuantSetup C:\OMNIC\QUANT\CLS.QNT
BENCH”

ExecuteOMNIC “QuantSetup C:\OMNIC\QUANT\CLS.QNT EDIT
BENCH COLLECT”

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Explanation: The first example displays an Open dialog box to allow a quant method to be selected. The macro does not load the bench and collect parameters associated with the method when the method is loaded.

The second example displays an Open dialog box to allow a quant method to be selected. The default filename is as shown. The macro loads the collect parameters with the method when it is loaded.

The third example opens the method in CLS.QNT and loads the bench parameters with the method.

The final example shows how to open a quant method without using one of the commands that control how standards are defined or saved (for example, AddStandardToMethod). If you open a quant method this way, you must use the EDIT parameter before you can issue any commands to modify the method. You should also include the BENCH and COLLECT arguments. This will ensure that the original bench and collect parameters associated with the method are retained, since the commands for defining and saving standards automatically overwrite the method.

RamanBenchSetup

This command displays the Raman version of the Optical Bench Setup window.

Syntax: Invoke RamanBenchSetup

Remarks: This command is available only with FT-Raman systems and because it displays an interactive window, Raman BenchSetup must be used with the Invoke keyword. This command can be used in a macro when the operator needs to interactively change the optical bench parameters. When the operator closes the window, the macro continues.

Example: ExecuteOMNIC “Invoke RamanBenchSetup”

RamanCalibrate This command displays the Calibrate Instrument dialog box when the invoke keyword is used. When the invoke keyword is not used, the CalibBits and CalibTime parameters are required as arguments.

Syntax: RamanCalibrate (when the invoke keyword is used)

RamanCalibrate <CalibBits> <CalibTime>
(when the invoke keyword is not used)

Remarks: This command is available only with when using Almega spectrometers.

Example: ExecuteOMNIC “invoke RamanCalibrate”

Example: ExecuteOMNIC “RamanCalibrate 7 -1”

Explanation: Starts an wavelength and white light calibration immediately.

Example: ExecuteOMNIC “RamanCalibrate 3 30”

Explanation: Schedules an wavelength calibration for 30 minutes after midnight.

RamanCollectSetup This command displays the Raman version of the Collect Setup dialog box.

Syntax: Invoke RamanCollectSetup

Remarks: Must be used with the Invoke keyword because this command displays an interactive dialog box. It can be used in a macro when the operator needs to interactively change the data collection parameters. When the operator closes the dialog box, the macro continues.

Example: ExecuteOMNIC “Invoke RamanCollectSetup”

RamanX This command shifts the selected spectra by the specified frequency.

Syntax: RamanX [<Laser frequency>]

Arguments: If the <Laser frequency> argument is not provided, the spectrum is shifted by the default frequency (9393.642 wavenumbers).

Example: ExecuteOMNIC “RamanX”

RamanXShift This command performs a Raman shift by the specified amount.

Syntax: RamanXShift <shift amount>

Arguments: The amount of shift is required.

Ratio This command displays the Ratio Spectra dialog box.

Syntax: Ratio

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. This command can be used in a macro when the operator desires to interactively ratio two or more spectra. Before the Ratio command is executed, the spectra to be ratioed must have been opened and selected in the current OMNIC window. When the operator closes the dialog box, the macro continues.

Example: ExecuteOMNIC “Invoke Ratio”

RatioSingleBeams This command displays the Ratio Spectra dialog box.

Description: Ratios two single-beam spectra.

Syntax: RatioSingleBeams

Remarks: This will work only on the two selected single-beam spectra.

Example: ExecuteOMNIC “RatioSingleBeams”

Explanation: The two selected single-beam spectra are ratioed and a new % transmittance spectrum is created.

RatioTrace This command produces a new profile trace that is the ratio of two existing traces.

Syntax: RatioTrace [<NumeratorID> <DenominatorID>]

Arguments: The <NumeratorID> argument represents the first trace added to the window, and the <DenominatorID> argument represents the second trace added to the window.

Remarks: When invoked, this command displays a dialog box that allows selection of the traces to be ratioed. If the command is not invoked, the IDs of the numerator and denominator traces must be specified.

RedoScale This command reapplies the last scale change that was undone with the UndoScale operation.

Syntax: RedoScale

Remarks: You can redo only the number of scale changes that have been undone. That is, if only two UndoScale commands have been done, you can use RedoScale only twice; a third use will return an error. Any other scale operation, such as box and zoom or full scale, resets the redo pointer to the top of the scale stack so no redo's can be executed until an undo is done.

Example: ExecuteOMNIC "RedoScale"

ReferenceDivide This command does a point-by-point division of one spectrum by another. Two spectra must be selected in order for this command to operate. The second spectrum selected is the divisor. The result is a new spectrum.

Syntax: ReferenceDivide

Example: ExecuteOMNIC "ReferenceDivide"

Explanation: Performs a ratio of the two selected spectra.

ReferenceMultiply This command does a point-by-point multiplication of two spectra.

Syntax: ReferenceMultiply

Example: ExecuteOMNIC “ReferenceMultiply”

Explanation: Performs a multiplication of the two selected spectra.

ReferenceScale This command scales the data in the selected region of the selected spectrum to Y-axis values in the range 0 to 1. Creates a new scaled spectrum.

Syntax: ReferenceScale

Example: ExecuteOMNIC “ReferenceScale”

Explanation: Scales the selected spectrum from 0 to 1 for absorbance spectra.

RegionSubtract

This command does an auto-scaled subtraction of one spectrum from another based on a specified region of the spectrum. The region is typically selected by the region or area tool prior to calling the function.

- Syntax:** RegionSubtract [<StartOfRegion> <EndOfRegion>]
- Arguments:** Unless the region or area tool has been used to specify the region of the spectrum, the frequency range must be provided as arguments.
- Remarks:** The specified region of the two spectra are used to calculate a factor which minimizes the difference between the spectra in that region. That factor is then used to calculate the difference between the entire spectra (where they overlap).
- Example:** ExecuteOMNIC “Invoke RegionSubtract”
- Explanation:** Uses the region specified by the region or area tool to calculate the factor for the subtraction.
- Example:** ExecuteOMNIC “RegionSubtract 2900 3500”
- Explanation:** Uses the region between 2900 and 3500 cm-1 to calculate the factor for the subtraction.
- Comments:** If neither the region nor the area tool has been used to specify the region, and if no frequency range is specified, the routine fails with the error message: “Use region tool to select comparison region”.

ReplaceInLibrary This command replaces a spectrum in a library with the currently selected spectrum.

Syntax: [invoke] ReplaceInLibrary [EntryNo] [<FieldInfo1>...<FieldInfo9>]

Arguments: The command arguments for this command are identical to those for the AddToLibrary command, with the exception of an additional required argument: the entry number in the library. This defines the entry that will be replaced.

Examples: ExecuteOMNIC "ReplaceInLibrary 10 "Dupont" "1989""

ExecuteOMNIC "Invoke ReplaceInLibrary 10"

Explanation: The first example replaces entry number 10 of the selected library with the selected spectra using "Dupont" and "1989" as the optional user fields.

The second example replaces entry number 10 of the selected library with the selected spectra and prompts the user to enter the field information.

Replace StandardInMethod

This command adds the currently selected spectrum as a standard in the currently selected quant method, replacing a standard already assigned to the method. The concentrations assigned for this standard may be entered in the command line; however, this is optional. If no concentrations are entered, the concentration values are unchanged from the previous values for this standard.

Syntax: `ReplaceStandardInMethod <Std#> <Conc1> <Conc2> ...
↳<ConcLast> [<Pathlength>]`

Parameters: The <Std#> argument is the number of the standard that will be replaced. This number corresponds to the value in the Index column of the Standards table on the Standards tab when the method is opened in TQ Analyst.

The <Conc1> argument is the concentration to be assigned to component #1. If no value is entered or if the value is set to '*', the concentration is unchanged.

The <Conc2> argument is the concentration to be assigned to component #2. If no value is entered or if the value is set to '*', the concentration is unchanged.

The <ConcLast> argument is the last concentration value entered.

The <Pathlength> argument is the pathlength of the standard; it is required for methods using a known or internal known pathlength.

Fewer values may be entered than components. If this happens, all extra components are set to zero. For a known or internal known pathlength method, the last component is the pathlength value that is assigned for the standard.

The resulting quant method will have the same number of standards as before the command.

Remarks: When this command is executed, the current quant method becomes uncalibrated. The EDIT option should have been specified when the method was opened, since this command will attempt to automatically rewrite the method to the disk.

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Examples: ExecuteOMNIC “ReplaceStandardInMethod 7”
ExecuteOMNIC “ReplaceStandardInMethod 5 2.1 3.4 2.7”
ExecuteOMNIC “ReplaceStandardInMethod 3 2.1 * 2.7”

Explanation: The first example replaces standard 7 in the quant method with the currently selected spectrum. The macro does not change the concentrations assigned for this standard.

The second example replaces standard 5 with the currently selected spectrum. The macro assigns concentration values of 2.1, 3.4 and 2.7 to the first three components in the standard. It does not change the concentrations assigned for any other components.

The final example replaces standard 3 with the currently selected spectrum. The macro assigns a concentration value of 2.1 to the first component, does not change the second component, assigns a concentration value of 2.7 to the third component, and does not change the concentration value for any other components.

Reprocess This command allows the selected spectrum to be reprocessed.

Syntax: [Invoke] Reprocess

Arguments: If the command is not invoked, the current settings of the collect and bench parameters are used to reprocess the selected spectrum. The collect parameters used include: Resolution, FinalFormat, ZeroFill, ApodizationFunction, BackgroundHandling, and DataCorrections. The bench parameters used are HighCutoff and LowCutoff.

Remarks: Can be used on interferograms and single-beam spectra. It can be used on ratioed spectra if they have interferogram data saved with them. If you are using an Almega spectrometer, you should use the VrmReprocess command instead.

Example: ExecuteOMNIC “Invoke Reprocess”

ResaveDataSet

This command truncates all spectra in a series data set to new spectral limits. It is used by the Series Truncate All Spectra menu command. The regions must be specified or a dialog box will request them. If the region is outside of the current spectral range, the spectrum range will stay the same. The original series data is overwritten with the invoked data.

Syntax: ResaveDataSet [<StartSaveRegion> <EndSaveRegion>]

Example: ExecuteOMNIC “ResaveDataSet 4000 900”

Explanation: Truncates all the spectra in the currently selected series file to the region from 4000 to 900 wavenumbers.

ResaveMapDataSet

This command truncates all spectra in a map data set to new spectral limits. It is used by the mapping software Truncate All Spectra menu command. The regions must be specified or a dialog box will request them. If the region is outside of the current spectral range, the spectrum range will stay the same. The original map data is overwritten with the invoked data.

Syntax: ResaveMapDataSet [<StartSaveRegion> <EndSaveRegion>]

Example: ExecuteOMNIC “ResaveMapDataSet 4000 900”

Explanation: Truncates all the spectra in the currently selected map file to the region from 4000 to 900 wavenumbers.

Residual This command performs a quantitative analysis to generate the residual spectrum for a particular input spectrum. Does not show the quantitative analysis results window.

Syntax: Invoke Residual [<FileName>]
Invoke Residual [NOPROMPT]

Parameters: The <FileName> argument is the name of the spectrum file that will be quantified.

NOPROMPT causes the quantitative analysis to be performed on the currently selected spectrum.

Examples: ExecuteOMNIC “Invoke Residual”

ExecuteOMNIC “Invoke Residual
➔ C:\OMNIC\SPECTRA\ABCD.SPA”

ExecuteOMNIC “Invoke Residual NOPROMPT”

Explanation In the first example, if a spectrum is selected, it is quantified. If no spectrum is selected, the Open dialog box appears to allow selection of a spectrum to quantify. The residual spectra appears in a new window titled Residual Spectra. The second example performs a quantitative analysis on the spectrum ABCD.SPA and displays the residual spectra. The final example quantifies the currently selected spectrum and displays the residual spectra.

ResetBench This command resets the 850 or 860 spectrometer hardware.

Syntax: ResetBench

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. This command may be used with or without the Invoke keyword. In either case, it causes a message to be sent to the spectrometer to reinitialize its hardware and firmware. Until the process is complete, a message is displayed saying, “Bench Restart in progress - please wait,” after which the macro continues.

Example: ExecuteOMNIC “ResetBench”

RestartServo This command causes a servo restart for Nexus, Magna-IR and Avatar® spectrometers.

Syntax: RestartServo

Example: ExecuteOMNIC “RestartServo”

RestoreWindow This command restores a window.

Syntax: RestoreWindow [<Window title>]

Arguments: If the window title is specified, that window is restored. If a title is not specified, the entire OMNIC window is restored.

Examples: ExecuteOMNIC “RestoreWindow ““Window1””””

ExecuteOMNIC “RestoreWindow”

Explanation: The first example restores the specified window to its normal size.
The second example restores the OMNIC window to its normal size.

ReverseRamanX This command unshifts the selected Raman spectra.

Syntax: ReverseRamanX

Example: ExecuteOMNIC “ReverseRamanX”

RevertBasisVector This command discards any basis vectors that have been manually added and reverts to the original set of 10 that were collected at the start of the series run.

Syntax: RevertBasisVector

Arguments: None.

Run This command runs an executable program as if the command were typed into the Windows Program Manager's Run dialog box.

Syntax: Run <Command> [<Mode>]

Arguments: The command argument must be specified. Substitute the executable filename for <Command>. The optional <Mode> argument can be used to specify how the application is run. The following table defines the valid modes:

Operation	Mode
To start a hidden application (this may be useful for DDE servers).	0
To start an application in normal mode (this is the default if no mode is specified).	1
To start an application maximized.	3
To start an application minimized.	6

Example: ExecuteOMNIC “Run D:\EXCEL\EXCEL.EXE 1”

Explanation: This example causes Excel to started in its normal display mode.

Runmacro This command causes a Macros\Basic macro to be executed.

Syntax: Runmacro <MacroFilename> [<Argument>]

Arguments: The <MacroFilename> argument is the name of the macro to be executed. The option <Argument> is passed to the Macros\Basic Execute program.

Example: ExecuteOMNIC “Runmacro
C:\OMNIC\MACRO\EXAMPLE.MAC”

Explanation: Executes the macro EXAMPLE.MAC.

RunMacroAndWait This command causes a Macros\Basic macro to be executed until completed.

Syntax: RunMacroAndWait <MacroFilename> [<Argument>]

Arguments: The <MacroFilename> argument is the name of the macro to be executed. The option <Argument> is passed to the Macros\Basic Execute program.

Example: ExecuteOMNIC “RunMacroAndWait
C:\OMNIC\MACRO\EXAMPLE.MAC”

Explanation: Executes the macro EXAMPLE.MAC. The RunMacroAndWait command does not finish until the entire macro is completed.

SaveBackgroundFile

This command saves the current background spectrum in the specified file.

Syntax: [Invoke] SaveBackgroundFile [<Filename>]

Arguments: If the Filename argument is specified, and includes the invoke keyword, it is used as the default in the Save As dialog box. If the invoke keyword is not included, the Filename argument is used as the filename.

Remarks: This command is available only when using Almega spectrometers. If the Filename argument is not specified, or if the invoke keyword is used, the user can specify a filename in the Save As dialog box.

Example: ExecuteOMNIC “Invoke SaveBackgroundFile”

Explanation: Lets the user specify the filename in the Save As dialog box.

SaveConfiguration

This command saves the current menu and toolbar configuration in the specified file.

Syntax: [invoke] SaveConfiguration <Configfile> [<Password>]

Arguments: The <Configfile> argument is the name of the configuration file to be saved. The <Password> argument is the optional password required to save the configuration file.

Remarks: If the command is not invoked, the filename must be specified. If the file specified is password protected and the password is not specified as part of the command, the user will be prompted to enter the password even in the non-invoked case.

Example: ExecuteOMNIC “SaveConfiguration
C:\OMNIC\PARAM\DEFAULT.MAC”

Explanation: Saves the configuration file DEFAULT.MAC.

SaveGasParamSet This command saves a QuantPad parameter set to the disk. This is not an OMNIC parameter set.

Syntax: SaveGasParamSet <filename>

Remarks: Available only if you have QuantPad software installed.

Example: ExecuteOMNIC "SaveGasParamSet
↳C:\OMNIC\PARAM\MYPARAM.EXP"

Explanation: Saves parameters to the disk.

SaveGroup This command saves the selected spectra as a single spectral group file (*.SPG). Can be used with the Invoke keyword.

Syntax: SaveGroup [<filename>]

Arguments: The <filename> argument is optional. If no filename is specified, the Save Group dialog box appears.

Example: ExecuteOMNIC "SaveGroup
↳"C:\OMNIC\SPECTRA\POLY.SPG""

SaveMap This command saves the current map file with the specified name.

Syntax: SaveMap [<Filename>]

Arguments: If the command is not invoked, the <Filename> argument is required. When it is invoked, the Save Options dialog box is displayed.

Remarks: Applies to Atlus systems only.

Example: ExecuteOMNIC "SaveMap"

Explanation: This example displays the dialog box that allows the user to enter a map filename to save.

SaveOptions This command saves the current options settings to a file.

Syntax: SaveOptions [<Optional Filename>]

Arguments: If the command is not invoked, the filename argument is required. When it is invoked, the Save Options dialog box is displayed.

Example: ExecuteOMNIC “SaveOptions “pek.con””

Explanation: Saves the current options settings to the file pek.con

Note Since the release of OMNIC 4.0, the SaveOptions command is obsolete. This command is still supported for previous versions of OMNIC.

SaveParameters This command saves the specified parameter groups to a file. If the file specified is a new parameter file, all groups are saved regardless of the groups specified. If it is not a new file, only the indicated groups are overwritten. This command can be used with the Invoke keyword.

Syntax: SaveParameters [<Filename>][Series] [Search] [Collect] [Bench]

Arguments: All of the arguments are optional. The filename can be the full path. Any or all of the parameter groups (Series, Search, Collect or Bench) can be specified. If none are specified, they are all saved. The order in which the groups are specified does not matter.

Example: ExecuteOMNIC “SaveParameters
“C:\OMNIC\PARAM\Diffuse.EXP””

Explanation: In this example the current parameters are saved to the file Diffuse.EXP located in the OMNIC\PARAM directory.

SaveQuant This command saves the currently selected quant method.

Syntax: SaveQuant

Parameters: No parameters are used. This command must not be invoked!

Example: ExecuteOMNIC “SaveQuant”

Explanation This is the only way to execute this command. You must use the EDIT argument in the QuantSetup command for this command to work.

Search This command searches the selected spectrum against the libraries selected in the search setup. Can be used with the Invoke keyword or with the Auto keyword.

Syntax: Search [Auto] [Print]

Parameters: If the Search window is already open when the Search command is executed, the Search window is brought to the front. The optional argument Auto can be added to execute the search without prompting the operator to specify a window for the search results. When the Auto argument is used, the Search window is closed automatically when the search is completed. The search results are displayed in a stacked window. The Print keyword prints the contents of the Search Results window. The search results can be retrieved by getting the value of the parameter Result Search.

Examples: ExecuteOMNIC “Search”
Text1.Text = GetOMNIC(“Result Search”)
ExecuteOMNIC “Invoke Search”

Explanation: The first example uses the currently selected libraries and automatically searches the selected spectrum. The results are then transferred to the Visual Basic text field Text1.Text.

In the second example the interactive search is invoked again using the existing list of spectral libraries.

SearchSetup This command allows libraries to be selected for use with the Search function. Must be used with the Invoke keyword.

Syntax: Invoke SearchSetup

Example: ExecuteOMNIC “Invoke SearchSetup”

Explanation: Displays the library selection search setup dialog box. The macro pauses and then continues when the operator closes the dialog box.

Select This command selects a spectrum (or spectra) in the active window.

Syntax: Select {All | First | Next | <Spectrum title>} [Shift]

Arguments: At least one argument is required: All, First, Next or the title of the spectrum. If the keyword All is specified, all of the spectra in the window are selected. If the keyword First is specified, the “first” spectrum is specified. Which spectrum is first is arbitrary, but when used with the Next keyword, this command allows looping through all spectra in a window. When “Next” is specified and all spectra have been selected, the command will fail. Aside from these three keywords, a spectrum title can be specified. The keyword Shift can be added as a second argument, which selects the specified spectrum in addition to the currently selected spectra. Generally, Shift should not be used with the All keyword, since all of the spectra are already selected. If you have a spectrum with the title All or Next or First, there will be a problem, since these keywords are checked before a search is done for the titled spectrum.

Examples: ExecuteOMNIC “Select All”
ExecuteOMNIC “Select ““2-Bromopropane”””
ExecuteOMNIC “Select Next Shift”

Explanation: The first example selects every spectrum in the active window. The second example selects the spectrum with the title “2-Bromopropane” if it exists in the active spectral window. The third example changes the selection state of the Next spectrum. For instance, if there are two spectra in a window and one is currently active, they will both be active after the command is finished. If there are two spectra in the window and they are both active, the second in the title list will be unselected by this command.

SelectHit This command selects from the last search the library match with the specified HitNumber. This match can then be queried through the SearchHit parameter group.

Syntax: SelectHit <HitNumber>

Arguments: The <HitNumber> argument must be specified.

Example: ExecuteOMNIC “SelectHit 7”

Explanation: Makes the seventh match in the current match list active so it can be queried through the SearchHit parameter group.

SelectLibrary This command allows you to select a library from the list created by the ListAllLibraries or ListSetupLibraries command.

Syntax: SelectLibrary <Library list number>
Invoke SelectLibrary [USER]

Arguments: If you do not use the Invoke keyword, you must specify the library list number for the library to be selected. The library list number is generated by the ListAllLibraries or ListSetupLibraries command. Libraries are numbered from 1 to N. (N is the number of libraries found by the ListAllLibraries command.) The USER argument is not valid if the Invoke keyword is not used. When the Invoke keyword is used, the optional USER argument causes the select library prompt to contain only user libraries. The <LibraryListNumber> argument is not valid when the Invoke keyword is used.

Remarks: If you do not use the Invoke keyword, you must first generate a list of libraries with the ListAllLibraries or ListSetupLibraries command. The library is not opened when it is selected without using the Invoke keyword. When you use the Invoke keyword, the Select Library dialog box is displayed, and the library is opened when it is selected.

Example: ExecuteOMNIC “ListAllLibraries”
ExecuteOMNIC “SelectLibrary 3”

Explanation: In this example, the third library in the list created by the ListAllLibraries command is selected. (See example 8 in the Macros\Pro Examples chapter of *Macros\Pro User’s Guide*.)

SelectListSpectrum

This command makes one of the spectra in the list produced by ListSpectra the selected spectrum in the window. The command is valid only when the currently selected window is the one used with the ListSpectra command. This command allows looping through a group of spectra in a window.

Syntax: SelectListSpectra First | Last | Next | Previous | <Spectrum Number> [Shift]

Arguments: At least one argument is required—First, Last, Next, Previous, or Spectrum Number. If the word First is specified, the “first” spectrum is selected. If the word Last is specified, the “last” spectrum is selected. The order is the same as used by the Select command. In practice, the spectrum added to a window last is selected first. The Next and Previous arguments let you loop through the spectra in either order. The spectrum number picks a specific spectrum based on the list generated by ListSpectra. The Shift argument is always optional. It adds the spectrum to the list of currently selected spectra.

Remarks: The command will return a DDE error if the spectrum is deleted. The Result Error will be “The object requested has been deleted.” If you use the ErrorOMNIC function, the error number returned is 285. Even if a spectrum is deleted, you can still use the Next or Previous keywords to skip over the missing spectra and select the other ones in the list.

Examples: ExecuteOMNIC “SelectListSpectrum Last”
ExecuteOMNIC “SelectListSpectrum Previous”
ExecuteOMNIC “SelectListSpectrum 3 Shift”

Explanation: The first example selects the last spectrum, which is actually the first spectrum added to the window.

The second example, which would normally be used in conjunction with the first example, picks the next spectrum in the window, which in this case would be the second spectrum added to the window.

The last example selects spectrum number 3 and adds it to the currently selected spectra.

SelectWindow This command selects a window to be the active window.

Syntax: SelectWindow <Window Title>

Arguments: The <Window Title> argument is the title of window to be selected. This is the text displayed in the title bar of the spectral window.

Example: ExecuteOMNIC “SelectWindow ““Window13”””

Explanation: The “Window13” spectral window becomes the active window.

SeriesReproc This command allows the current series data set to be reprocessed. Must be used with the Invoke keyword.

Syntax: Invoke SeriesReproc

Remarks: The series data set must be collected with the Collect FinalFormat parameter set to Interferogram or SingleBeam to allow reprocessing. A series data set may be reprocessed only one time. When the operator closes the dialog box, the macro continues. The original interferogram or single-beam spectrum is overwritten with the Final Format data.

Examples: ExecuteOMNIC “Invoke SeriesReproc”

SeriesSetup This command displays the Series Setup dialog box. Must be used with the Invoke keyword.

Syntax: Invoke SeriesSetup

Remarks: Must be used with the Invoke keyword because this command displays an interactive dialog box. It can be used in a macro when the operator needs to interactively change series collection parameters. When the operator closes the dialog box, the macro continues.

Example: ExecuteOMNIC “Invoke SeriesSetup”

Set This command sets a parameter to a specified value. This is an alternative to using the OmTalk routine SetOMNIC.

Syntax: Set <parameter group> <parameter name> <parameter value>

Arguments: The parameter groups, names and values are documented with the parameters.

Example: ExecuteOMNIC “Set Display XStart 2000”

Explanation: Sets the starting position of the abscissa to 2000 by changing the XStart parameter.

SetAsBackground This command sets the currently selected single-beam spectrum as the background. This background is then used by subsequent ratios.

Syntax: SetAsBackground

Example: ExecuteOMNIC “SetAsBackground”

SetContourParams

This command moves parameters used in the Contour/Waterfall Setup dialog box from the global Profile parameter set to the current contour/waterfall window Profile parameter set.

Syntax: SetContourParams

Arguments: None.

Remarks: The active window must be a Series contour/waterfall window. The parameters moved are in the Profile parameter set. When the parameters are moved, the current window is updated if there are any changes. The parameters are:

DispValueScale 0 is linear contour; 1 is log contour

DispMinValue Minimum contour reconstruct value

DispMaxValue Maximum contour reconstruct value

CollectAutoScale TRUE or FALSE

WFallMinValue Waterfall spectrum Y minimum

WFallMaxValue Waterfall spectrum Y maximum

WFallDispDir 0 = Forward, 1 = Reverse waterfall display

See GetContourParams and SetupContourGlobal.

Example: ExecuteOMNIC “Invoke SetContourParams”

SetDisplayOptions

This command displays a dialog box for setting parameters for defining the Atlus map display parameters in the currently displayed map window. The Invoke keyword is not necessary; the dialog box will always be displayed. Parameters such as contour map thresholds, waterfall display ranges and other parameters explained in the Atlus manual or on-line Help system can be changed. When the dialog box is closed, the parameters are implemented in the map window.

Syntax: SetDisplayOptions

Arguments: None.

Remarks: Applies to Atlus systems only. When the dialog box is closed, a new contour map is created if any contour parameters have been changed. The waterfall is redisplayed if it is modified.

Example: ExecuteOMNIC “Invoke SetDisplayOptions”

Explanation: Opens the dialog box to input new display parameters.

SetMapParams

This command moves parameters used in the map window setup dialog box from the global PROFILE parameter set to the current map window PROFILE parameter set.

Syntax: SetMapParams

Arguments: None.

Remarks: Applies to Atlas systems only. The active window must be a map window. The parameters moved are in the PROFILE parameter set. When the parameters are moved, the current window is updated if there are any changes. The parameters are:

DispValueScale 0 is linear contour; 1 is log contour
DispMinValue Minimum contour reconstruct value
DispMaxValue Maximum contour reconstruct value
CollectAutoScale TRUE or FALSE
WFallMinValue Waterfall spectrum Y minimum
WFallMaxValue Waterfall spectrum Y maximum
WFallDispDir 0 = Forward, 1 = Reverse waterfall display
BitMapAnnotation TRUE or FALSE
UseGrayScale TRUE or FALSE
FillLevel 0, 2, 4, 6, 8, 10 levels of fill for contour map
Display3D TRUE or FALSE

Example: ExecuteOMNIC “Invoke SetMapParams”

Explanation: Moves parameters from the global PROFILE parameter set to the PROFILE parameter set in the active map window. The parameters are the ones in the map Display Options dialog box.

SetNewReference This command places the new spectral quality reference spectrum into the current experiment file. The spectrum must be a single-beam sample spectrum or background type.

Syntax: SetNewReference

Arguments: None.

Remarks: The active window must contain a single-beam sample spectrum or background spectrum.

Example: ExecuteOMNIC “SetNewReference”

Explanation: Makes a copy of the currently displayed spectrum and sets it in the current experiment as the spectral quality reference.

SetNewRegion This command sets start and end region values for the region tool on the currently displayed spectrum. Use this command instead of setting the parameters “Display RegionEnd” and “Display RegionStart.” The advantage of using this command rather than setting the individual parameters is that the display is updated only once, instead of twice, for each parameter set. This is important when a large number of high resolution spectra are being displayed.

Syntax: SetNewRegion <StartOfRegion> <EndOfRegion>

Arguments: StartOfRegion is the starting X axis value for the region, and EndOfRegion is the ending X axis value for the region.

Example: SetNewRegion “2800 3100”

Explanation: Set the currently selected spectrum region to 2800 – 3100 in the units of the displayed spectrum.

Comments: Values must be legal values within the range of the spectral data.

SetProfileOptions

This command displays a dialog box for setting parameters for defining a new Atlus map profile in the currently displayed map window. The Invoke keyword is not necessary because the dialog box will always be displayed. The parameters are defined in the Atlus user's guide and Help system.

- Syntax: SetProfileOptions
- Arguments: None.
- Remarks: Applies to Atlus systems only. When the dialog box is closed, a new profile is created.
- Example: ExecuteOMNIC “Invoke SetProfileOptions”
- Explanation: Opens a dialog box to input new profile parameters.

SetupContour

This command sets up contour information for the contour map or waterfall display. Opens a dialog box for inputting contour information.

- Syntax: SetupContour
- Example: ExecuteOMNIC “Invoke SetupContour”

SetupContourGlobal

This command displays the contour dialog box using the global set of parameters. This does not need a series or contour window active to function. The parameters will not change any active series or contour windows. The parameter Global must be sent to access the global parameters.

- Syntax: SetupContourGlobal Global
- Arguments: The parameter Global is required to access global parameters.
- Remarks: Accesses only the global profile parameter set. See also SetContourParams and GetContourParams.
- Example: ExecuteOMNIC “SetupContourGlobal global”
- Explanation: Displays a dialog box for contour and waterfall setup using the global profile parameter set.

SetupMapGlobal

This command displays the map display options dialog box for mapping using the global set of parameters. This does not need a map window to function. The parameters will not change any active map windows.

- Syntax: SetupMapGlobal
- Arguments: None.
- Remarks: Accesses only the global profile parameter set.
- Example: ExecuteOMNIC “SetupMapGlobal”
- Explanation: Displays a dialog box for map display options using the global profile parameter set.

SetSpecQuantParams

This command displays a dialog box for the operator to edit the temperature, pressure, pathlength, component name and concentration, if these are invoked, for the currently selected spectrum (otherwise, uses the parameters in the Gsanal parameter set to set temperature, pressure, pathlength, component name and concentration). If the parameters are accepted, the spectrum is updated in memory but not on the disk.

- Syntax: SetSpecQuantParams
- Remarks: Available only if you have QuantPad software installed.
- Example: ExecuteOMNIC “SetSpecQuantParams”

SetUsageForStandard

This command sets the usage for a specified standard in the currently selected quant method.

Remarks: When this command is executed, the current quant method becomes uncalibrated. The EDIT option should have been specified when the method was opened since this command will attempt to automatically rewrite the method to the disk.

Syntax: `SetUsageForStandard <Std#> <Usage>`

Parameters: The <Std#> argument is the number of the standard for which the usage will be set. This number corresponds to the value in the Index column of the Standards table on the Standards tab when the method is opened in TQ Analyst.

The <Usage> argument is the text that describes the state assigned for the standard. The possible states are CALIBRATION, VALIDATION, CORRECTION and IGNORE. If this field is not present, the usage is set to CALIBRATION.

Examples: `SetUsageForStandard 3 CALIBRATION`
`SetUsageForStandard 7 IGNORE`
`SetUsageForStandard ALL CALIBRATION`
`SetUsageForStandard 1`

Explanation: The first example sets standard 3 to CALIBRATION. The second example sets standard 7 to IGNORE. The third example sets all standards to CALIBRATION. The final example sets standard 1 to CALIBRATION.

ShiftXAxis

This command adjusts the value associated with each X-axis value by a constant amount.

Syntax: `ShiftXAxis <Value>`

Parameters: The <Value> argument is a floating point value that describes the shift in the X-axis values. This value may be either positive or negative.

ShowHeader This command displays the Collection And Processing Information window for the selected spectrum. Must be invoked.

Syntax: Invoke ShowHeader

Example: Invoke ShowHeader

ShowRollZoom This command turns the display of the Roll/Zoom window on or off.

Syntax: ShowRollZoom { On | Off | Toggle }

Arguments: On displays the Roll/Zoom window, and Off hides the window. Toggle switches the display status of the window regardless of its current state.

Example: ExecuteOMNIC “ShowRollZoom Toggle”

Explanation: Displays the Roll/Zoom window if it is hidden or hides it if it is displayed.

ShowSeriesInfo This command shows the Collection And Processing Information window for the active series reconstruction window.

Syntax: ShowSeriesInfo

Arguments: None. Only useful when invoked, although the uninvoked version does not generate an error.

ShowToolbar This command turns the display of the toolbar on or off.

Syntax: ShowToolbar { On | Off | Toggle }

Arguments: On displays the toolbar, and Off hides it. Toggle switches the display status of the toolbar regardless of its current state.

Example: ExecuteOMNIC “ShowToolbar Toggle”

Explanation: Displays the toolbar if it is hidden or hides it if it is displayed.

SignFile This command digitally signs a file. Requires the user to enter their Windows NT/2000 username and password. Available only with ValQ DS.

Syntax: SignFile <Filename> [<Index>]

Arguments: Filename is the full path and file name of the file to be signed. (Note that Thermo Nicolet files and JCAMP files are the only file types supported.) The Index parameter specifies which item in a multiple-item file (such as a spectral group (.SPG) or a report notebook (.NBK) file) to sign. Omitting Index, or setting it to -1, will sign all items in a multiple-item file.

Remarks: The returned result is a string, stored in Result Current, containing either an error message or a success message.

Example: ExecuteOMNIC "SignFile c:\temp\signme.spa"

Explanation: Reads every byte in the file (or every byte of the selected item in a multiple-item file) and calculates a special cryptographic number. This number is stored along with information about the person signing the file, the date and time the file was signed, and the reason the file was signed. (For additional information, refer to the GetSignatureInfo and VerifyFile commands.)

SizeWindow This command sets the size of a window.

Syntax: SizeWindow <Width> <Height> [<Window Title>]

Arguments: If the window title is specified, the specified window is sized. If the window title is not specified, the entire OMNIC window is sized.

Example: ExecuteOMNIC "SizeWindow 200 200 Window1"

Explanation: Sets the size of the spectral window titled "Window1" to 200 by 200 pixels.

SMMMod This command displays the Synchronous Multiple Modulation setup dialog box or sets the system to SMM step-scan mode.

Syntax: SMMMod [Phase]

Arguments: When the command is given in a macro with the Invoke keyword, the macro will pause until the operator completes changes to the parameters and closes the Synchronous Multiple Modulation (SMM) setup dialog box by choosing OK. If the command is given without the Invoke keyword but followed by the word Phase, the SMM setup dialog box will be called, one survey scan will be collected and the optimum demodulation phase angle(s) will be determined. If the command is given without either the Invoke or Phase keyword, the system is just put into Synchronous MultipleModulation step-scan mode selected by the scan control word.

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. If, before giving this command, the scan control word is not set to an odd number, the latest SMM step-scan parameters will be loaded. If it is set to a valid odd number (see the ScanControl parameter), any other parameters set via macro commands will be retained. In any case, when the dialog box is closed (by choosing OK, if the command is invoked), the parameters will be saved as the latest SMM step-scan parameters, the macro will continue, and SST data collection will be enabled.

Example: ExecuteOMNIC "Invoke SMMMod"

Smooth This command performs a Savitsky-Golay smooth operation on the selected spectrum. The complete spectrum is smoothed. The result is a new spectrum. This command can be used with the Invoke keyword.

Syntax: Smooth <Number smooth points>

Arguments: The number of smooth points must be specified if the Invoke keyword is not used. The allowed values for the number of points are the odd integer values from 5 to 25, inclusive.

Examples: ExecuteOMNIC "Smooth 5"
ExecuteOMNIC "Invoke Smooth"

Explanation: In the first example the currently selected spectrum is treated using a five-point moving window smoothing function.

In the second example the Smooth dialog box is displayed to allow the number of smooth points to be specified, and the macro pauses until the user closes the dialog box.

SpectralInterpretation This command initiates the IR Spectral Interpretation command found in the Analyze menu of OMNIC.

Example: ExecuteOMNIC "invoke SpectralInterpretation"

Syntax: Invoke SpectralInterpretation

Explanation: Initiates the IR Spectral Interpretation command found in the Analyze menu of OMNIC.

SpectralMath

This command generates a spectrum that is an arbitrary function of one or two selected spectra. The spectra must be selected before this command is used. If two spectra are used, they must have the same X-axis unit and data point spacing but need not have the same Y-axis unit or spectral range.

Syntax: Invoke SpectralMath
SpectralMath <OperationString>

Arguments: The <OperationString> argument is the operation to perform on the selected spectrum or spectra. It may contain integer or real numbers. The spectra are identified by the letters “A” for the spectrum selected first and “B” for the one selected second.

Allowed operators are +, -, * and / for add, subtract, multiply and divide. The standard priority of operators is followed; that is, multiplication and division before addition or subtraction, and left to right when operators of the same priority are present. Parentheses may be used to change the order of operations.

The letter “D” before a spectrum letter specifies its derivative; two “D”s, its second derivative.

The factor “k” is not needed when using this command via DDE. Just insert the appropriate value in the <OperationString> argument.

If the <OperationString> argument contains spaces, it must be enclosed in quotes.

Example: ExecuteOMNIC “SpectralMath A-k*B”

Explanation: Multiplies the second selected spectrum by the current value of the factor control, then subtracts it from the first selected spectrum. The result is added to the active window.

(Continued on next page.)

Other examples of operation string syntax:

$-A / 2$	One half of the negative of spectrum A
$A * B$	Spectrum A multiplied by spectrum B
A / B	Spectrum A divided by spectrum B
$A - 100$	The value of 100 is subtracted from each data point in the spectrum
$1 / A$	The reciprocal of spectrum A
100	A flat line at Y-axis value = 100
$DA + DB$	The sum of the first derivatives of spectrum A and spectrum B
$(A + B) / 2$	The average of spectrum A and spectrum B
$-\log(A/100)$	The negative log (base 10) of spectrum A divided by 100 (%T \rightarrow A)
$\exp(-A)$	10 raised to the power of the negative of spectrum A (A \rightarrow T)
$\text{sqrt}(A*B)$	The square root of the product of spectrum A and spectrum B

- SplitSeries** This command splits the current series window data set into individual spectra. Saves the series in the specified directory as sequential files.
- Syntax: SplitSeries <StartTime> <EndTime> <Filename>
- Arguments: The <StartTime> argument is the time of the first spectrum to save. The <EndTime> argument is the time of the last spectrum to save. The <Filename> argument is the path and four-letter base name to use for the spectra. The extension must also be included.
- Remarks: The active window must be a series contour/waterfall window. The parameters moved are in the Profile parameter set. When the parameters are moved, the current window is updated if there have been any changes.
- Examples: ExecuteOMNIC “Invoke SplitSeries”
ExecuteOMNIC “SplitSeries 0.5 1.5
“C:\OMNIC\SPECTRA\EXAM.SPA””
- Explanation: The first example displays a dialog box to input information to split the active series window series file into individual .SPA files in the specified directory.
The second example removes the spectra from time 0.5 to 1.5 and saves the spectra to disk as:
C:\OMNIC\SPECTRA\EXAM0000.SPA,
C:\OMNIC\SPECTRA\EXAM0001.SPA,
C:\OMNIC\SPECTRA\EXAM0002.SPA, etc. for each time slot.
- SSTHelp** This command displays the SST Help Topics Contents.
- Syntax: [invoke] SSTHelp
- Arguments: None
- Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed.

StackOverlay This command switches the active window to stack or overlay mode.

Syntax: StackOverlay {StackMode | OverlayMode}

Arguments: StackMode displays spectra in a “stack” of panes, each of which can contain only one spectrum. OverlayMode displays multiple spectra overlaid.

Example: ExecuteOMNIC “StackOverlay StackMode”

Explanation: Displays the spectra in a stack of panes, each of which contain only one spectrum.

StartBenchAlign This command begins interferometer alignment, similar to the AutoTune command.

Syntax: StartBenchAlign

Remarks: Must be invoked. As the automatic alignment is run, a dialog box indicates the status of the process. The operator cannot set the alignment parameters.

Example: Invoke StartBenchAlign

Explanation: The alignment is initiated and a status message is displayed until the alignment is completed.

StartLogging This command starts logging to the specified log file.

Syntax: StartLogging <Filename>

Arguments: Filename of the log file to write to. The file is not required if the Invoke keyword is specified.

Examples: ExecuteOMNIC “StartLogging
➔“C:\OMNIC\LOG\NEWLOG.LOG””
ExecuteOMNIC “Invoke StartLogging”

Explanation: In the first example, a log file named Newlog.log is started. In the second example, the Start Logging dialog box is displayed.

StepScanStatus This command gets the status of step-scan collect.

Syntax: [invoke] StepScanStatus

Arguments: None

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. During a step-scan collect, this command may be used to determine the progress of the scan. The response is returned in the Result Current parameter as a string containing the current step number and the total number of steps in the scan separated by a comma; e.g. "100,608".

StopCollect This command terminates data collection if it is in progress (results are saved in the Collect window).

Syntax: StopCollect

Example: ExecuteOMNIC "Invoke CollectSample Test1 Auto Polling"
ExecuteOMNIC "StopCollect"
ExecuteOMNIC "CloseWindow Yes ""Collect Sample"""

Explanation: A data collection is started and displayed in the Collect window. The Polling keyword causes the ExecuteOMNIC command to return immediately. Later, the collection is terminated and the contents of the Collect window are placed into the active spectral window.

StopLogging This command stops sending results such as library search results and peak tables to a log file.

Syntax: StopLogging

Example: ExecuteOMNIC "StopLogging"

Explanation: In this example data analysis results are no longer sent to a log file.

StorePhaseArray

This command stores the currently selected spectrum as the phase array. See GetStoredPhaseArray.

Syntax: StorePhaseArray

Example: StorePhaseArray

Explanation: Stores the currently active spectrum as the phase array to be used for phase correcting spectra.

StraightLine

This command generates a straight line over a region of the currently selected spectrum. The operation is performed directly on the selected spectrum but can be undone with the Undo command.

Syntax: StraightLine

Parameters: Uses the Display RegionStart and Display RegionEnd parameters of the active window if they are not zero. If they are both zero, the Display XStart and Display XEnd parameters are used instead.

Example: ExecuteOMNIC “StraightLine”

Explanation: In this example a straight line is drawn across the currently viewed or highlighted spectral region.

Subtract This command takes the first selected spectrum and subtracts the second selected spectrum from it after multiplying the second selected spectrum by a factor.

Result = 1st selection - (factor * 2nd selection)

Syntax: Subtract [<Factor>]

Arguments: The optional <Factor> argument is the initial factor for the subtraction. If no factor is specified, the best subtraction factor will be calculated and used.

Examples: ExecuteOMNIC “Subtract 1.0”
ExecuteOMNIC “Invoke Subtract 1.0”

Explanation: The first example automatically subtracts the two selected spectra using the indicated factor (in this case 1).

The second example opens the Subtract task window. At this point the macro pauses until the subtraction is completed and the operator closes the Subtract window. If the Subtract window is already open when the Subtract command is executed, the Subtract window is brought to the front.

SwitchToContour This command switches from the waterfall to the contour display if a Series contour/waterfall window is the active window.

Syntax: SwitchToContour

Arguments: None.

Remarks: The active window must be a Series contour/waterfall window.

Example: ExecuteOMNIC “Invoke SwitchToContour”

Explanation: Displays the contour map in the Series contour/waterfall window.

SwitchToWaterfall This command switches from the contour map to the waterfall display if a Series contour/waterfall window is the active window.

Syntax: SwitchToWaterfall
Arguments: None.
Remarks: The active window must be a Series contour/waterfall window.
Example: ExecuteOMNIC “Invoke SwitchToWaterfall”
Explanation: Displays the waterfall in the Series contour/waterfall window.

TextSearch This command starts the text search dialog box for the currently opened spectral library. Must be used with the Invoke keyword.

Syntax: Invoke TextSearch [Select]
Arguments: The Select argument is optional. If used with the Select argument, the command displays a list of the available libraries so that one can be selected.
Examples: ExecuteOMNIC “Invoke TextSearch”
ExecuteOMNIC “Invoke TextSearch Select”
Explanation: The first example starts the text search dialog box for the currently opened library.
The second example displays a list of available libraries and prompts the operator to select the one to be searched.

TileWindows This command arranges the windows so none of them overlap.

Syntax: TileWindows
Example: ExecuteOMNIC “TileWindows”
Explanation: Tiles the spectral windows so that none overlap.

TimeRes This command displays the time-resolved step-scan setup dialog box or sets the system to time-resolved step-scan mode.

Syntax: TimeRes

Arguments: When the command is given in a macro with the Invoke keyword, the macro will pause until the operator completes changes to the parameters and closes the time-resolved step-scan setup dialog box by choosing OK. If the command is given without the Invoke keyword, the system is just put into time-resolved step-scan collect mode.

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. If, before giving this command, the scan control word is not set to 129, the latest TRS parameters will be loaded. If it is set to 129, any parameters set via macro commands will be retained. In any case, when the dialog box is closed (by choosing OK, if the command is invoked), the parameters will be saved as the latest time-resolved step-scan parameters, the macro will continue with the scan control word set to 129, and SST data collection will be enabled.

Example: ExecuteOMNIC “Invoke TimeRes”

TranslateCoord ToSpectrumIndex

This command translates the coordinates to an index into the map. This can be used when determining the index of the ExtractMapSpectrum command. The return value is stored in Result Current.

Syntax: TranslateCoordToSpectrumIndex <X> [<Y>]

Arguments: For an area map, the X and Y values are needed to specify the spectrum. For any other type of map, only the X position is needed.

Remarks: Applies to Atlas systems only.

Examples: ExecuteOMNIC “TranslateCoordToSpectrumIndex 10 30”
ExecuteOMNIC “TranslateCoordToSpectrumIndex 10”

Explanation: The first example calculates the index for the area map at position X=10, Y=30. The second example calculates the index for the line map at position X=10.

TrTransmittance This command converts all selected spectra to transmittance units.

Syntax: Transmittance

Example: ExecuteOMNIC “Transmittance”

Explanation: Converts all selected spectra in the active spectral window to transmittance format.

TRExtract This command displays the TRSS Data Extraction dialog box.

Syntax: TRExtract

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. This command can be used in a macro when the operator desires to extract peak heights or areas from a set of time-resolved spectra. Before the TRExtract command is executed, the spectra from which peak heights or areas are to be extracted must have been opened and all selected in the current OMNIC window. Also, the peak height tool or peak area tool must be selected with the appropriate frequencies defined. When the operator closes the dialog box, the macro will continue.

Example: ExecuteOMNIC “Invoke TRExtract”

TruncateSpectrum

This command truncates the selected spectrum by deleting all data outside the specified range.

Syntax: TruncateSpectrum <StartOfSaveRange> <EndOfSaveRange>
[EXTEND]

Arguments: The <StartOfSaveRange> and <EndOfSaveRange> arguments define the X-axis limits of the data that will be saved. All other data is deleted.

If the EXTEND keyword is added to the command, it will add blank data if necessary to the ends of the spectrum to make it go out to the specified limits.

Example: ExecuteOMNIC “TruncateSpectrum 4000 800”

Explanation: Deletes all spectral data outside the range 4000 to 800 wavenumbers. For example, you might want to do this if data is taken with a narrow-band MCT detector but the collection limits were 4000 to 400 wavenumbers and all the data below 800 wavenumbers is noise.

Undo

This command undoes the last operation if possible. The functions that can be undone include Blank and Straight Line.

Syntax: Undo

Example: ExecuteOMNIC “Undo”

Explanation: Undoes the last operation if possible.

UndoScale This command undoes the last scale change made on the active window.

Syntax: UndoScale

Remarks: There is a limit to the number of UndoScale operations that can be done. When that limit is reached, the DDE command will return an error 64. The limit is currently 6 or the number of scale changes that have been made (that is, if only 3 scale changes have been made, you can't undo more than 3 times; no more than 6 are kept for each window). See also RedoScale.

Example: ExecuteOMNIC "UndoScale"

UpdateLibraryTitle This command modifies the title of the currently selected spectral library.

Syntax: UpdateLibraryTitle <NewTitle>

Parameters: <NewTitle> is the text that will become the title of the currently selected spectral library. The title should be enclosed in quotation marks.

UpdateLib SpectrumTitle

This command modifies the title of a particular spectrum in the currently selected spectral library.

Syntax: UpdateLibSpectrumTitle <Index> <NewTitle>

Parameters: <Index> is the index of the entry in the currently selected library that will have its title changed.

<NewTitle> is the text that will become the title of the spectrum in the currently selected spectral library. The title should be enclosed in quotation marks.

URLFTIRsearch

This command launches the default web browser and opens the web page <http://FTIRsearch.com>.

Syntax: URLFTIRsearch

Arguments: None.

Remarks: Identify the compounds in your samples over the Internet with an online spectral search service called FTIRsearch.com. The pay-as-you-go system this service uses helps make it possible for everyone to search high quality databases of spectra. (This includes smaller labs, researchers involved in short term projects and educational institutions where the need to search databases is infrequent.)

Example: ExecuteOMNIC "URLFTIRsearch"

Variance This command calculates statistical spectra using the selected spectra in the active spectral window. At least two spectra must be selected.

Syntax: Variance [<Arg>]

Arguments: If the command is invoked, the argument is not used. The <Arg> argument is a number that is the sum of values specifying the statistical spectra to calculate. The legal values are:

1 = Average

2 = Variance

4 = Range

0 = Current format

1# = Derivative

2# = Second derivative

Remarks: You can combine values for the least significant digit to calculate multiple results. For example, use 6 (2+4) for variance and range, 5 for range and average. If <Arg> is not specified, all three possible output spectra are produced in Y-axis format.

Examples: ExecuteOMNIC "Variance 7"

ExecuteOMNIC "Variance 11"

ExecuteOMNIC "Invoke Variance"

Explanation: The first example calculates the average, variance and range of the selected spectra in their original format and saves the resulting spectra in the current window. The second example calculates the average of the first derivatives of the selected spectra and saves the resulting spectrum in the current window. The last example displays the Statistical Spectra dialog box.

VCDCalibrate This command displays the VCD Calibration dialog box.

Syntax: VCDCalibrate

Remarks: Available only for Nexus 870 and Magna-IR 850 and 860 systems with SST experiment software installed. This command can be used in a macro when the operator desires to generate a calibration function for VCD spectra. Before this command is executed, a pair of quarter-wave plate spectra must have been opened and selected in the current OMNIC window. When the operator closes the dialog box, the macro will continue.

Example: ExecuteOMNIC “Invoke VCDCalibrate”

VerifyFile This command verifies the digital signature in a file. Available only with ValQ DS.

Syntax: VerifyFile <Filename> [<Index>]

Arguments: Filename is the full path and file name of the file to be verified. (Note that Thermo Nicolet files and JCAMP files are the only file types supported.) The Index parameter specifies which item in a multiple-item file (such as a spectral group (.SPG) or a report notebook (.NBK) file) to verify. Omitting Index, or setting it to 0, will verify only the first item in a multiple-item file.

Remarks: The returned result is a string, stored in Result Current, containing either an error message or a success message.

Example: ExecuteOMNIC “VerifyFile c:\temp\signme.spa”

Explanation: Reads every byte in the file (or every byte of the selected item in a multiple-item file) and calculates a special cryptographic number. This number is compared against the number stored with the file. If the numbers match, the file has not changed since it was signed. (For additional information, refer to the SignFile and GetSignatureInfo commands.)

ViewLibrary This command opens the individual spectrum name listing for the currently opened spectral library.

Syntax: ViewLibrary
Invoke ViewLibrary [Select]

Arguments: If the Invoke keyword is used, the Select argument can be used. If the command is used with the Select argument, a list of the available libraries will be displayed so that one can be selected.

Examples: ExecuteOMNIC "ViewLibrary"
ExecuteOMNIC "Invoke ViewLibrary Select"

Explanation: The first example displays the list of individual spectral titles contained in the opened spectral library.

The second example first displays a list of available libraries and prompts the operator to choose the one to be viewed.

ViewNotebook This command displays the OMNIC notebook viewing window.

Syntax: Invoke ViewNotebook [<Filename>]

Arguments: The filename is the full DOS path and filename of the notebook file to open. This argument is optional. If present, the notebook window is displayed showing the specified report. If not present, the notebook file selection dialog box is displayed.

After the notebook file selection dialog box is closed by choosing OK, the selected file is written to omnic.ini in the entry:

```
[Files]  
DefaultNotebook
```

Example: ExecuteOMNIC "Invoke ViewNotebook
C:\OMNIC\REPORT\LAB.NBK"

Explanation: Displays the OMNIC notebook viewing window showing the table of contents for the notebook lab.nbk.

VrDisplaySetup This command displays the Display Setup dialog box.

Syntax: Invoke VrDisplaySetup

Remarks: This command is available for visible Raman systems only and must be used with the Invoke keyword because it displays an interactive dialog box. The VrDisplaySetup command does not return until the Display Setup dialog box is closed.

Example: ExecuteOMNIC “Invoke VrDisplaySetup”

VrmCollectBackground This command initiates background data collection. If the Polling keyword is not used, the macro will not move on to the next command until the background is collected and processed. If this command is used with the Invoke keyword, the data collection window is displayed and interactive data collection is done. If the Invoke keyword is not used, the collection is done in the background. If the collection window is not displayed during data collection, the background is placed in an invisible DDE window; it can be displayed by using the DisplayBackground command.

Syntax: [Invoke] VrmCollectBackground [<background title>] [Auto] [Polling]

Arguments: The <background title> and Auto arguments are optional. If no title is specified, the background will have as its title the word “Background” followed by the current date and time. The Auto argument sets up data collection so that no operator prompts for entering a title and preparing for data collection are displayed. If the Auto argument is used along with the Invoke keyword, the collection window will be displayed, but the operator prompts will not appear.

Remarks: This command is available for visible Raman systems only.

Example: ExecuteOMNIC “VrmCollectBackground”

Explanation: Initiates background data collection. The macro stops and waits for the data collection to be completed before it continues.

VrmCollectSample

This command initiates sample data collection. The macro will not move on to the next command until the sample is collected and processed, unless the Polling keyword is used. If this command is used with the Invoke keyword, the data collection window is displayed and interactive data collection is done. If the Invoke keyword is not used, the collect is done in the background. If the collection window is not displayed during data collection, the sample spectrum is placed in an invisible DDE window; it can be displayed by using the Display command. The macro will stop and wait for the data collection to be completed before it continues.

Syntax: [Invoke] VrmCollectSample [<Sample title>] [Auto] [Polling]

Arguments: The <Sample title> and Auto arguments are optional. If no title is specified, the sample spectrum title will be controlled by the current options settings. The Auto argument sets up data collection so that no operator prompts for entering a title and preparing for data collection are displayed. If the Auto argument is used along with the Invoke keyword, the collection window will be displayed, but the operator prompts will not appear.

Remarks: This command is available for visible Raman systems only. A background may be automatically collected prior to the sample depending on the background handling options set in the Experiment Setup dialog box. A background will be collected if the current background is invalid. This can happen if any of the following parameters have changed: VRM BinMode, CameraSetTemp, ExposureTime, ParOffset, ParSize.

Example: ExecuteOMNIC "VrmCollectSample ""Sample from J. Jones"""

Explanation: Collects a sample spectrum without displaying operator prompts or the collection window. The spectrum is given the title "Sample from J. Jones."

VrmExperimentSetup

This command displays the Experiment Setup dialog box, which allows you to edit the parameters in the Collect, Bench, Quality, Advanced, and CCD Array tabs in the Experiment Setup dialog box.

Syntax: Invoke VrmExperimentSetup

Remarks: This command is available for visible Raman systems only, and, because it opens an interactive dialog box, this command must be used with the Invoke keyword. VrmExperimentSetup does not return until the Experiment Setup dialog box is closed.

Example: ExecuteOMNIC “Invoke VrmExperimentSetup”

VrmMatchSettings

This command sets the experiment parameters to the same values as those used to collect the selected spectrum.

Syntax: VrmMatchSettings

Remarks: This command is available for visible Raman systems only and sets the following parameters:

Exposure times (preview and collect)

Number of sample exposures

Final format

Number of background exposures

Beam path

Laser

Laser power

Grating

Aperture

Multiple-grating position collect (MGPC)

Center wavelength (if not MGPC)

Save range (if MGPC)

Camera temperature

Bin mode

Rows to bin (if not auto select)

Use dichroic

Polarizer

Polarization analyzer and its angle

Illuminators

Example: ExecuteOMNIC “VrmMatchSettings”

VrmNanometers

This command converts a selected spectrum's X-axis, currently in units of pixels, wavenumbers, or Raman shifted wavenumbers, to units of nanometers.

Syntax: VrmNanometers

Remarks: This command is available for visible Raman systems only.

Example: ExecuteOMNIC "VrmNanometers"

VrmRamanShift

This command converts a selected spectrum's X-axis, currently in units of pixels, nanometers, or absolute wavenumbers, to units of Raman shifted wavenumbers.

Syntax: VrmRamanShift

Remarks: This command is available for visible Raman systems only. The data is shifted by the standard laser frequency, which is the frequency value of the excitation laser calculated during the most recent laser wavelength calibration. To shift a spectrum a specific amount, use the ShiftXAxis command.

Example: ExecuteOMNIC "VrmRamanShift"

VrmReprocess This command allows the selected spectrum to be reprocessed.

Syntax: [Invoke] VrmReprocess

Arguments: The Data Spacing, Final Format, and Correction drop-down list boxes are the same as in the Collect tab of the Experiment Setup dialog box. The Maximum RowsTo Bin and Max Spectral Range readouts are defined by the conditions set when the spectrum was collected. The Bin Rows and Saved Spectral Range entries must be within the corresponding maximum ranges. The Bin Rows editing controls are active only if the Save Raw Data box (in the Collect tab of the Experiment Setup dialog box) was checked when the selected spectrum was collected. The Saved Spectral Range editing controls are inactive if Final Format is set to pixels.

The Background and White Light Correction controls allow you to specify the source of the data to be used in reprocessing. The data selected must be consistent (camera temperature, grating, frequency range, etc.) with the spectrum to be reprocessed. The Background controls will be active only if the Save Raw Data box (in the Collect tab of the Experiment Setup dialog box) was checked when the spectrum was collected. The White Light Correction controls will be active only if White Light or Both Corrections is selected in the Correction drop-down list box on the Collect tab of the Experiment Setup dialog box.

If VrmReprocess is not invoked, the parameters currently set in the Collect and Bench tabs are used to reprocess the selected spectrum.

Remarks: This command is available for visible Raman systems only. It can be used on spectra only if they have raw data saved with them.

Example: ExecuteOMNIC “Invoke VrmReprocess”

VRMSmooth This command performs a moving average or median smooth on the selected spectrum.

Syntax: VRMSmooth <NumberOfPoints> {0|1}

Arguments: The first argument specifies the number of points to use in the smooth operation. The allowed values are 3 through the number of points in the spectrum. The second argument specifies whether a moving average (0) or median (1) smooth should be used.

Remarks: This is used as an alternative to the standard Savitsky-Golay Smooth operation when more drastic smoothing is needed. It should only be used on spectra with no sharp features; e.g., backgrounds or white light spectra.

Example: ExecuteOMNIC “VRMSmooth 50 0”

Explanation: Smooth the currently selected spectrum using a 50-point moving average.

VRMTuneCenterWL This command specifies the center wavelength setting of the grating for preview data collects in OMNIC for Almega Collect Sample operations.

Syntax: VRMTuneCenterWL <CenterWavelength>

Arguments: The center wavelength argument must be specified in nanometer units.

Remarks: Normally, the center wavelength for preview data collects is the setting last used in the Bench tab of Experiment Setup.

Example: ExecuteOMNIC “VRMTuneCenterWL 815.5”

Explanation: Position the grating so that the center wavelength for preview data collects is 815.5 nm in the next Collect Sample operation.

VrOtherConversions

This command applies the specified conversion to the selected spectrum. The converted result then replaces the original selected spectrum.

Syntax: [Invoke] VrOtherConversions [Wavenumbers | Micrometers | Custom shift <PeakPosition>| Absorbance | % Transmission]

Arguments: One of the selected arguments is required unless the Invoke keyword is used. The last two conversions (Absorbance and % Transmission) can be applied only to FTIR spectra.

Custom shift must be invoked and a peak must be selected with either the spectral cursor or peak height tool. Custom shift can be applied to only one spectrum at a time. The <PeakPosition> is optional. If supplied it is preselected in the Actual field of the Custom Shift dialog box.

Remarks: This command is available for visible Raman systems only. To apply a Raman shift to a selected spectrum, use the ShiftXAxis command instead of the Custom Shift option.

Example: ExecuteOMNIC “Invoke VrOtherConversions””Custom Shift”””
ExecuteOMNIC “VrOtherConversions Wavenumbers”

Explanation: The first example displays the Other Conversions dialog box with Custom shift preselected in the drop down list of conversions. The second example converts the selected spectrum, or spectra, to absolute wavenumbers.

VrOtherCorrections

This command applies the specified correction to the selected spectrum. The corrected result is added to the window and becomes the selected spectrum.

Syntax: [Invoke] VrOtherCorrections [{"White light"} { *Stored* | *Current* | <filename>} | "Raman efficiency" | Both]

Arguments: One of the arguments is required, unless the Invoke keyword is used. If White light is selected, you must apply one of the white light correction options. Choose Stored to use the white light curve stored with the raw data. (For this option to work, the Save Raw Data option must be set when the spectrum is collected.) Choose Current to use the current Almega white light curve (obtained using the white light calibration), or you can specify the file name of a white light correction curve.

Remarks: This command is available for visible Raman systems only.

Example: ExecuteOMNIC "Invoke VrOtherCorrection"

ExecuteOMNIC "VrOtherCorrection ""White light"" *Current*"

Explanation: The first example displays the Other Corrections dialog box with Custom Shift preselected in the drop down list of conversions. The second example applies a white light correction to the selected spectrum using the white light correction curve from the white light calibration.

VrmGetRawData

This command displays the raw data associated with a selected spectrum (if the raw data was saved with the spectrum).

Syntax: VrmGetRawData

Example: ExecuteOMNIC "VrmGetRawData"

Comment: Displays the uncorrected nanometer spectrum, as well as the background and white-light correction curve that were current when the spectrum was collected. (If the Bin CCD Rows On Chip option on the Advanced tab of the Experiment Setup dialog box is not checked, the background is an array and is not displayed.)



OMNIC DDE Parameter Groups

This chapter contains a list of the OMNIC DDE parameter groups and detailed descriptions of each parameter and parameter group.

List of OMNIC DDE parameter groups

The OMNIC DDE parameter groups are listed below. Following this list are descriptions of the parameter groups in alphabetical order.

Accessory	Raman Mot_Stage
Bench	Raman Polarizer
BenchStatus	Raman ViewStage
Bench and Collect parameters for step-scan experiments	Report
Collect	Result
Display	Search
850	SearchHit
Gsanal	Series
Library	SpecImage
MenuStatus	Spectrum
Options	SpecQual
Quantify	TQGeneral
QuantMethod	VRM
Raman Laser	Window
Raman Microprobe	

850 group parameters

With Nexus 870 and Magna-IR 850 and 860 systems, an additional group of parameters are available for controlling special experiment data collections. They may be considered to be extensions of the normal OMNIC Bench and Collect parameters, but they are in a separate group named “850.” (The scan control word, therefore, would be set via a command, such as: SetOMNIC “850 ScanControl”,1.) These parameters are specific to SST systems that are maintained while OMNIC is running, and the parameter settings do not persist between OMNIC sessions unless they have been saved in an experiment file.

All of the parameters in the following table are saved as part of an OMNIC experiment file as well as in spectral headers of spectra collected with SST experiments. These values will be initialized to those stored in the default experiment file when OMNIC starts up. When a new experiment file is loaded, these parameters are reset. All values are members of the OMNIC group named “850” and are accessible via DDE.

Note: The ScanControl parameter defines the type of experiment. It is 0 for normal operation (single-channel linear scan collects). The other parameters are significant for certain SST experiments. ▲

Parameter Name	Description	Legal Values
MCIGainA	Gain applied to Input A of the MCI board.	Allowed values: 1, 2, 3 or 5
MCIGainB	Gain applied to Input B of the MCI board.	Allowed values: 1, 2, 3 or 5
MCIHPFilter	High pass filter setting on the MCI board.	One of these integer numbers of Hz: 0, 2, 10, 20 or 100
MCILPFilter	Low pass filter setting on the MCI board.	One of these numbers of kHz: 100, 300, 900 or 2500 Set to 100 kHz for AM and PM step-scan experiments in the corresponding setup screens.

850 group parameters (continued)

Parameter Name	Description	Legal Values
OBCFilters	A bit-mapped word selecting the high and low pass filter settings on OBC boards A and B. Applicable only during dual-channel, linear-scan collections.	<p>An integer in the range 0 to 255 determined by summing four numbers, one from each of the sets below.</p> <p>Board A Low-Pass Filter</p> <p>11 kHz = 0 20 kHz = 1 50 kHz = 2 90 kHz = 3</p> <p>Board A High-Pass Filter</p> <p>1 Hz = 0 10 Hz = 4 20 Hz = 8 200 Hz = 12</p> <p>Board B Low-Pass Filter</p> <p>11 kHz = 0 20 kHz = 16 50 kHz = 32 90 kHz = 48</p> <p>Board B High-Pass Filter</p> <p>1 Hz = 0 10 Hz = 64 20 Hz = 128 200 Hz = 192</p>

850 group parameters (continued)

Parameter Name	Description	Legal Values
PMAmplitude	For systems with piezo endplates, this controls the phase modulation amplitude (lambda). The setting is twice the desired amplitude at the laser crossing.	An integer value: 0, 1, 3, 5, 7. 0 is the same as a non-piezo operation. Settings of 1, 3, 5, or 7 give lambda values of 0.5, 1.5, 2.5, and 3.5 respectively. For modulation frequencies (PModFreq) > 800 Hz, the amplitude setting cannot be greater than 5 (= 2.5 lambda)
PMCollectTime	Signal averaging time per step for AM and PM step-scan collections.	An integer number of milliseconds in the range 1 to 10000.
PModFreq	Mirror modulation frequency for PM step-scan collections. Note: This parameter has a different meaning for TRSS experiments collected with external digitizer boards. In this case, it specifies the number of triggers per step if bit 15 is set. For example, a value of 32778 specifies 10 triggers per step (32768 + 10).	An integer number of Hz in the range 2 to 1000.
PMPhase	Demodulation phase angle for PM step-scan collections.	Any number in the range 0.00 to 359.99 (0.01 degree steps).
PMSettleFactor	Factor by which SSDelayTime is increased around ZPD.	An integer in the range 1 to 500.
PMSettleFactorRange	Number of data points on either side of ZPD in which the PMSettleFactor is applied.	An integer in the range 0 to 256. Set to 32 for AM and PM step-scan experiments in the corresponding setup screens.

850 group parameters (continued)

Parameter Name	Description	Legal Values
ScanControl	Specifies the type of data collection to be performed. This parameter must be set immediately before giving the 850CollectB or 850CollectS command, in order to define which type of collection to perform. It is automatically reset to 0 after an SST collection.	<p>0 = normal linear scan 1 = AM step-scan 4 = dual channel linear scan (PEM) 5 = dual channel AM step-scan 11 = PM step-scan 15 = PM on A, AM step-scan on B 21 = AM on A, Synch. demod. on B 31 = Parallel SMM on A and B 95 = Serial SMM on A and B</p> <p>(Add 32 to any of the above if the detector input is via SST BNC A.)</p> <p>129 = time resolved step-scan (TRSS)</p> <p>Note: The legal values are derived by combining the following bits:</p> <p>1 = Step-scan collect 2 = Mirror modulation on 4 = Input to OBC board B 8 = Internal demodulation of signal to OBC board A 16 = Internal demodulation of signal to OBC board B 32 = External input to OBC board A 64 = Serial dual demodulation on 128 = Time-resolved step scan</p>

850 group parameters (continued)

Parameter Name	Description	Legal Values
SSDelayTime	Delay between mirror step and start of collection for step-scan collections.	An integer number of milliseconds in the range 1 to 1000
SMMExtPhase	Phase angle for demodulation of the signal relative to sample modulation frequency (degrees).	Floating point number from 0.00 to 359.99 in 0.01 degree steps
SurveyScan	Indicates if a linear survey scan to find ZPD is appropriate for a step-scan data collection.	1 = True or 0 = False
SynchFreq	Frequency of synch signal for SMM (Hz). Note: This should be set to 0 if the sample modulation is to be provided by an external device. In that case, the frequency of the external modulation may be read from this parameter after the experiment is complete.	Floating point number from 0.0 to 200.0
TRSSAddACDC	A flag to add a static interferogram to time-resolved interferograms in a TRSS experiment.	Integer value where 0 = false or 1 = true
TRSDCCollect	Flag to collect static interferogram in TRSS experiment.	Integer value where 0 = false or 1 = true
TRSDelay	Delay from trigger pulse to first sample point in TRSS experiment (nsec).	Long integer, multiples of 50 from 50 to 15,000,000

850 group parameters (continued)

Parameter Name	Description	Legal Values
TRSIDwell	Dwell time between first and second sample points in TRSS experiment (nsec).	Long integer, multiples of 10 from 10 to 15,000,000
TRSMInTrigTime	Time between triggers in TRSS experiment (sec).	Floating point numbers in multiples of 0.001 from 0 to 50.000
TRSNPtsAvg	Average number of points at each dwell time in TRSS experiment.	Integer value from 1 to 500
TRSSNumPoints	Total number of sample points to be collected in TRSS experiment.	Integer value from 2 to 1024
TRSSRange	External digitizer input range (+/- volts) in TRSS experiment. A value of 0.0 specifies autoranging.	Floating point number from 0.0 to 10.0 in 0.1 volt steps (A non-zero value must correspond to an allowed range for the board being used.)
TRSSSpaceFactor	Relative spacing of points 3 thru TRS_NumPoints in TRSS experiment.	Floating point number from 1.00 to 2.00 in steps of 0.05

Accessory group parameters

Parameter Name	Description	Legal Values
GCCntlReset	Resets the external trigger.	Bit-mapped integer in the range 0 to 255.
GCCntlStat	GC controller status.	Bit-mapped integer. (Read only.)
GCFIDInput	GC FID input value.	Floating point number. (Read only.)
GCLPRampAmp	GC lightpipe ramp amplitude.	Floating point number.
GCLPRampFreq	GC lightpipe ramp frequency.	Floating point number.
GCLPSetTemp	GC lightpipe setpoint temperature.	Floating point number.
GCLPTemp	GC lightpipe actual temperature.	Floating point number. (Read only.)
GCTRefTemp	GC reference temperature.	Floating point number. (Read only.)
GCTLRampAmp	GC transfer line ramp amplitude.	Floating point number.
GCTLRampFreq	GC transfer line ramp frequency.	Floating point number.
GCTLSetTemp	GC transfer line setpoint temperature.	Floating point number.
GCTLTemp	GC transfer line actual temperature.	Floating point number. (Read only.)
MainUserPort	Value read and written from the user port in the main sample compartment. This port is on the bench I2C bus.	Integer value in the range 0 to 255.
MicEnaVPort	Enables and disables View mode of the Nic-Plan™ microscope. MicEnaVPort must be enabled in order to use MicViewPort and MicViewType.	True or False: True = enabled. False = disabled.

Accessory group parameters (continued)

Parameter Name	Description	Legal Values
MicViewPort	Sets View mode of the Nic-Plan microscope. When the value is True, the View button is disabled.	True or False. True = View.
MicViewType	Sets the microscope view mode to reflection or transmission.	True or False. True = reflection. False = transmission.
UserPort2	Writes to the I2C port in the sample compartment of a Magna-IR spectrometer.	Integer value from 0 to 255.
ValWheelPos	Moves the validation wheel to a position.	Integer value. 0 (zero) = open beam 1 = 1.5 mil polystyrene 2 = 3.0 mil polystyrene

Bench group parameters

Most of the legal values for this group are determined by the spectrometer. The values listed here are meant to be representative. Some spectrometers may have more legal values and some may have fewer.

Parameter Name	Description	Legal Values
ADC	Number of digitizer bits.	16 or 20.
Aperture	Size of the aperture opening.	Floating point number in the range 0 to 150.0. 100 is meant to completely fill the detector.
BeamPath	Causes mirrors to be flipped so the beam passes through a particular sample compartment and onto a given detector. There is a separate beam path for each detector.	One of the following strings: FrontMain BackMain GCAEM InternalMain RightMicroscope LeftAEM RightAEM LeftAEMReserved LeftMicroscope LeftAEMSample RightAEMSample RightAEMReserved RightMicroscopeFront RightMicroscopeBack LeftMicroscopeFront LeftMicroscopeBack GCAEMLeft

Bench group parameters (continued)

Parameter Name	Description	Legal Values
Beamsplitter	Identifies the beamsplitter. It is necessary to set this only if the beamsplitter has been changed in the spectrometer.	One of the following strings: GE KBR SI QUARTZ SI CAF2 QUARTZ ZNSE GE CSI BAF2 SI XT KBR MYLAR 3 MYLAR 625 MYLAR 125 MYLAR 25 MYLAR 100 MYLAR 50

Bench group parameters (continued)

Parameter Name	Description	Legal Values
BenchType	Identifies the spectrometer model.	18 = 205 19 = 800M 20 = 510M 21 = Retrieved from library 22 = 5PC 23 = IR44 24 = 20PC 25 = 520M 26 = 240M 27 = 5020 28 = 5040 29 = Magna-IR 550 30 = Magna-IR 750 31 = Impact® 400 32 = 5DX 33 = 5SX 34 = 20SX 35 = 510 36 = 520 37 = 710 38 = 730 39 = Raman 950 40 = Impact 400D 41 = Magna-IR 850 42 = Impact 410 43 = Impact 420 44 = Protégé™ 460 45 = Magna-IR 560 46 = Magna-IR 760 47 = Magna-IR 860 48 = Avatar 360 49 = Raman 960 50 = ECO

Bench group parameters (continued)

Parameter Name	Description	Legal Values
BenchType (continued)		51 = 320 57 = 360N 58 = Nexus 470 59 = Nexus 670 60 = Nexus 670 dual channel 61 = Nexus 870 62 = Nexus 63 = Nexus dual channel 65 = Genesis 66 = Genesis NIR 67 = Genesis II 68 = Genesis II NIR 69 = DeterminatIR 70 = Satellite 71 = Satellite 1000 73 = Galaxy 3020 75 = Galaxy 5020 77 = Galaxy 7020 78 = Polaris 4326 Upgrade 79 = Research Series 80 = Infinity 60AR 81 = Infinity Gold MI 82 = Infinity Gold MI Plus 83 = Infinity Gold HR 84 = Infinity 60MI 85 = Infinity 60MI Plus 86 = Infinity Gold AR 87 = Infinity Gold AR Plus 88 = IR100 90 = IR200 91 = IR300 999 = Almega (Read only.)

Bench group parameters (continued)

Parameter Name	Description	Legal Values
BenchVersion	Identifies the version of spectrometer.	Floating point number such as 1.7. (Read only.)
DriverVersion	Indicates the version of the bench control driver.	Floating point number such as 0.9 or 1.1. (Read only.)
Gain	Controls the signal gain.	Floating point number that is a power of 2. Some values are not allowed for some spectrometers.
HighCutoff	Start of the spectral range that is to be saved after the spectrum is converted to the FinalFormat. See also LowCutOff. When this parameter is set, several others are recalculated. This value is used by the spectrometer to set some filters.	Wavenumber values in floating point. The default is 4000.0.
HighPassFilter	High pass filter setting. On Magna-IR spectrometers, filters are set automatically based on mirror velocity.	(Read only.)
LaserAdjust	Aperture compensation value. This value is added to the laser frequency to get the effective laser frequency.	Floating point string from -50 to 50 wavenumbers. The default is 0.0.
LaserFreq	Laser frequency.	Floating point number. (Read only.)
LowCutoff	End of the spectral range that is to be saved after the spectrum is converted to the FinalFormat. See also HighCutoff.	Wavenumber values in floating point. The default is 400.0.
LowPassFilter	Low pass filter setting. On a Magna-IR spectrometer, filters are set automatically based on mirror velocity.	(Read only.)

Bench group parameters (continued)

Parameter Name	Description	Legal Values
PeakPosition	Data point position of ZPD. Changed every time the parameter Collect PeakPosition is changed to a value slightly larger than Collect PeakPosition. The “slightly larger” amount varies with spectrometer type and is based on how accurately the spectrometer is able to position the peak.	(Read only.)
PeakRange	Defines the accuracy of locating the interferogram peak. If this value is set to 16, for example, the software will search 16 points on either side of the expected peak position (contained in “Bench peakposition”) for the true peak.	(Read only.)
RapidScanState	Sets up a Magna-IR spectrometer to configure for collecting data as fast as possible.	0 or 1, where 0 = Off and 1 = On.
RetraceVelocity	Retrace velocity for the moving mirror. Set automatically when the forward velocity is set.	(Read only.)
SampleShuttle	Sets the sample shuttle	True or False. True moves the shuttle to the sample position. False moves the shuttle to the background position.

Bench group parameters (continued)

Parameter Name	Description	Legal Values
SDP	Scan data points. Represents the total number of data points the spectrometer is asked to produce and is related to Collect NumDataPts. Whenever Collect NumDataPts is changed, SDP is set to something slightly larger. The “slightly larger” amount varies with spectrometer type and is based on how accurately the spectrometer is able to position the peak (same as Bench/Collect PeakPosition).	(Read only.)
SettleTime	Time in milliseconds that the spectrometer should wait to start taking data points after turn-around is complete and the moving mirror is moving forward. The value used for normal data collection on a Magna-IR is 200. This setting has no effect on Impact or 20 (G series) spectrometers. If the velocity is held constant and the settle time is increased, the physical distance the mirror travels must increase so that ZPD is encountered at the correct time.	
Source	Selects the source to be used.	One of these strings: IR, White Light or Off.
SSP	Sets the sample spacing. Used only on Magna-IR spectrometers. A setting of 0.5 is valid only on Magna-IR 850 and 860.	One of these floating point values: 1.0, 2.0 or 0.5.

Bench group parameters (continued)

Parameter Name	Description	Legal Values
Velocity	Sets the velocity of the moving mirror.	One of these floating point values (centimeters per second): 0.1582 0.3165 0.4747 0.6329 0.9494 1.2659 1.8988 2.5317 3.1647

BenchStatus group parameters

These parameters are valid only for spectrometers with a Magna-IR-like OBC board, such as the Nexus and Avatar 550 or 560, 750 or 760, 850 or 860, and 950 or 960. (Not all parameters apply to every bench.)

Parameter Name	Description	Legal Values
BoardTemp	Temperature of the OBC board in degrees Celsius.	Floating point number. (Read only.)
DCLaser	Laser DC voltage in volts.	Floating point number. (Read only.)
DetectorOK	Detector status.	True or False. True = On. (Read only.)
ErrStat	256-bit error status bitmap; error bits are not sticky.	(Read only.)
Fuse	Fuse voltage in volts.	Floating point number. (Read only.)
IRSrcCur	IR source (Globar) current in amperes.	Floating point number. (Read only.)
IRSrcPwr	IR source (Globar) voltage in volts.	Floating point number. (Read only.)
LaserCur	Laser input current in amperes.	Floating point number. (Read only.)
LaserR	Laser R peak-to-peak output voltage.	Floating point number. (Read only.)
LaserX	Laser X peak-to-peak output voltage.	Floating point number. (Read only.)
LaserY	Laser Y peak-to-peak output voltage.	Floating point number. (Read only.)
Minus12	Minus 12 power voltage in volts.	Floating point number. (Read only.)

BenchStatus group parameters (continued)

Parameter Name	Description	Legal Values
Minus15	Minus 15 power voltage in volts.	Floating point number. (Read only.)
Plus12	Plus 12 power voltage in volts.	Floating point number. (Read only.)
Plus15	Plus 15 power voltage in volts.	Floating point number. (Read only.)
Plus5	Plus 5 power voltage in volts.	Floating point number. (Read only.)
Plus5V2	Second plus 5 power voltage in volts.	Floating point number. (Read only.)
PowerTemp	Temperature of power supply in degrees Celsius.	Floating point number. (Read only.)
WLSRCCur	White light source current in amperes.	Floating point number. (Read only.)
WLSRCPwr	White light voltage in volts.	Floating point number. (Read only.)

Collect group parameters

Parameter Name	Description	Legal Values
ApodizationFunction	Indicates the type of apodization function to be used for this data collection. The default setting is Happ-Genzel.	One of these strings: Happ-Genzel Triangular Boxcar N-B Weak N-B Medium N-B Strong Blackman-Harris
Autogain	Indicates whether autogain will be used for this data collection.	True or False.
AutoSave	Indicates whether the collected spectra will be saved as a disk file. See also BaseName and BasePathName.	True or False.
AutoSetFilter	State of the Set Filters Based On Velocity option on the Advanced tab of the Experiment Setup dialog box.	True or False.
AutoSetSSP	Controls the check box, on the Advanced tab of the Experiment Setup dialog box, that allows the sample spacing to be set automatically, based on the selected collection limits.	True or False.
BackgroundFileName	Name of the file that contains the background to be used for this data collection. Used only if BackgroundHandling is set to ThisBkg.	Full DOS pathname.

Collect group parameters (continued)

Parameter Name	Description	Legal Values
BackgroundHandling	Indicates type of background processing to be used.	One of these strings: BeforeCol AfterCol AfterTime ThisBkg
BaseName	Base name used to generate filenames when AutoSave is set to True.	String of 4 alphabetic characters, such as "ABCD".
BasePathName	Path of the DOS directory that AutoSave spectra will be stored in.	Full DOS path to a directory.
Correlation	Indicates the type of correlation to be used for this data collection. The default setting is Simple.	One of these strings: None Simple Factor2 Factor8 Factor32 MatchFactor2 MatchFactor8 MatchFactor32
CorrError	Controls the correlation range, which is the number of data points away from the expected PeakPosition that the correlation algorithm will search for the peak. If this value is set to N, Correlation will look at N data points on each side of the expected PeakPosition, or a total of 2N points.	Integer number of data points in the range 0 to 30. (The upper limit should be higher so this range will change.) The default setting is 5.

Collect group parameters (continued)

Parameter Name	Description	Legal Values
CosmicRayRejection	Specifies the amount of cosmic ray rejection to perform during collection. Cosmic ray rejection is necessary only when using a germanium detector.	None, Low, Medium or High.
DataCorrections	Indicates a type of data correction that should be applied to the collected spectrum.	One of these strings: None Kramers-Kronig ATR H2O CO2 H2O and CO2
ExternalTrigger	Specifies whether to wait for an external trigger before starting the data collection.	True or False.
FinalFormat	Format that the collected spectra should be converted to. The default setting in OMNIC is %Transmittance.	In OMNIC, one of these strings: Interferogram %Transmittance Absorbance Kubelka-Munk PhotoAcoustic Reflectance Log(1/R) Emission SingleBeam In OMNIC For Raman, one of these strings: Interferogram Raman Spectrum Shifted Spectrum Corrected Spectrum

Collect group parameters (continued)

Parameter Name	Description	Legal Values
MaxBackgroundAge	Used when BackgroundHandling is set to AfterTime. Data collections initiated when the background is older than this time will generate warning messages.	Integer number of minutes.
NumDataPts	Number of interferogram data points to keep after correlation.	Integer number of data points in the range 64 to 133120.
NumPhaseDataPts	Number of data points to extract out of an interferogram for phase correction.	Integer number of data points in the range 16 to 8192. The default is 200.
NumPhaseTransformPts	Number of FFT data points for phase correction. If NumPhaseTransformPts is greater than NumPhaseDataPts, zero filling is done to reach the specified number. If NumPhaseTransformPts is less than NumPhaseDataPts, data points are dropped off each end to reduce the number.	Integer number of data points. Power of two in the range 64 to 8192. The default is 1024.
NumScans	Number of scans to coadd to produce one spectrum.	Integer number of scans in the range 0 to 65536. The default is 64.

Collect group parameters (continued)

Parameter Name	Description	Legal Values
NumTransformPts	<p>Number of FFT points. Setting this to NumDataPts</p> <p>rounded up to the next higher power of 2 results in no zero filling. Doubling the rounded value gives one level of zero fill, etc. For example, if NumDataPts is 4000, setting NumTransformPts to 4096 results in a single-beam spectrum with no zero filling, and setting NumTransformPts to 8192 gives 1 level of zero filling.</p>	<p>Integer number of data points. Powers of 2 in the range 64 to 4194304. The default is 8192.</p>
PeakPosition	<p>Data point position to expect the peak to occur at.</p>	<p>Integer number of data points in the range 256 to 8192. the default is 800.</p>
PhaseCor	<p>Phase correction algorithm to use. The default setting is Mertz.</p>	<p>One of these strings:</p> <p>Mertz</p> <p>PowerSpectrum</p>
PreScanReset	<p>Controls the check box, on the Advanced tab of the Experiment Setup dialog box, that automatically resets the bench before every data collection.</p>	<p>True or False.</p>

Collect group parameters (continued)

Parameter Name	Description	Legal Values
Resolution	Setting this field sets all of the other data collection parameters necessary to achieve the specified resolution. See also ZeroFill and Bench HighCutoff. The parameters that are set include SDP, PeakPosition and SSP in the Bench parameters group and NumDataPts, NumTransformPts and PeakPosition in the Collect parameters group.	One of these floating point strings: .125, .25, .5, 1.0, 2.0, 4.0, 8.0, 16.0 or 32.0 Of course, your spectrometer must be capable of the specified resolution.
SaveInterferograms	Saves the sample and background interferograms in the same file as the final format spectrum.	True or False. The default is False.
SequenceNum	The sequence number to be appended to the BaseName to produce the filename used for automatically saved spectra. This value is increased by one automatically each time a spectrum is saved.	Integer number in the range 0 to 9999.
SingleSided	State of the Single-Sided Interferogram option on the Advanced tab of the Experiment Setup dialog box.	True or False.

Collect group parameters (continued)

Parameter Name	Description	Legal Values
Status	Status of the most recent collect operation.	These comma-separated fields: <Number of scans> <Number of bad scans> <Number of batches> <Last scan ErrorCode> <Reference peak> <Last scan peak error> <Number of data points> <Percent done> <Peak height>
SurveyScan	Indicates the state of the Preview Data Collection option on the Advanced tab of the Experiment Setup dialog box.	True or False.
UseStoredPhaseArray	Specifies whether to use the stored phase array.	True or False.
UseSampleShuttle	Enables the sample compartment shuttle.	True or False.
ZeroFill	Indicates the number of levels of zero filling that are to be used in processing the data to final format. Setting the ZeroFill parameter causes several other parameters to be recalculated. The parameters that are set include SDP, PeakPosition and SSP in the Bench parameters group and NumDataPts, NumTransformPts and PeakPosition in the Collect parameters group.	One of these strings: None 1 Level 2 Levels

Display group parameters

Parameter Name	Description	Legal Values
AllAnnotation	Determines whether annotation is displayed for all spectra or only for the selected spectrum.	True or False.
Area	Area underneath the spectrum between StartAreaRegion and EndAreaRegion.	Floating point number. (Read only.)
AutoStack	Turns autostack on or off.	True or False.
ConnectAnnotation	Determines whether a line is drawn from the spectrum to the annotation text.	True or False.
CurTool	Sets the current tool from the palette.	One of these strings: Annotation Area CrossHair PeakHeight Region Selection
EndAreaBase	End of the baseline region for corrected peak area measurement. This value is set by the CorrectedArea command. See also StartAreaBase.	Valid X-axis values, in floating point.
EndAreaRegion	End of the area used to calculate peak area. This value is set by the Area and CorrectedArea commands. See also StartAreaRegion.	Valid X-axis values, in floating point.

Display group parameters (continued)

Parameter Name	Description	Legal Values
EndPeakBase	End of the baseline region for corrected peak height measurement. This value is set by the CorrectedPeakHeight command. See also StartPeakBase.	Valid X-axis values, in floating point.
Mode	Sets the display mode of the current window.	One of these strings: OverlayMode StackMode
OverlayTitles	Turns the overlaying of titles on or off.	True or False.
PaneLocks	Bit-mapped integer that indicates which panes should be locked. The least significant bit corresponds to the top pane.	Any valid integer.
Panes	The number of panes to be used when the display is in stack mode.	Integer string between 1 and 32. If the window is not large enough to display the number of panes set here, a smaller number of panes will be used instead. The number of panes used under this condition is determined by the minimum pane height, which is something extremely small, such as 3 pixels.

Display group parameters (continued)

Parameter Name	Description	Legal Values
PeakHeight	Result of the last corrected peak height calculation. This is calculated as the height of the spectrum at PeakLoc after a baseline between StartPeakBase and EndPeakBase has been subtracted.	Floating point number. (Read only.)
PeakLoc	X-axis location used to calculate peak height. The is set by the CorrectedPeakHeight command. The PeakHeight command does not set this value. See StartPeakBase and EndPeakBase.	Valid X-axis coordinates.
RegionEnd	End of the region used by commands like Blank and StraightLine.	Valid X-axis values.
RegionStart	Start of the region used by commands like Blank and StraightLine.	Valid X-axis values.
SamplingInfo	Determines whether sampling information is displayed in the window.	True or False.
ScaleAll	Determines whether the Apply To All Spectra option in the Display Limits dialog box is turned on.	True or False.
ShowAnnotation	Determines whether annotation is displayed with the spectra.	True or False.
ShowGrid	Turns the display of the grid on or off.	True or False.
ShowXAxis	Determines whether the X-axis is shown.	True or False.
ShowYAxis	Determines whether the Y-axis is shown.	True or False.

Display group parameters (continued)

Parameter Name	Description	Legal Values
SIConfig	Bitmap (in decimal) that controls the contents of the sampling information window. The low order seven bits are used to turn the seven sampling information fields on or off. The bit order, from least to most significant is: Heading, Title, Date, Collection Info, Bench Info, Comments, History.	Integer value. 1 = Company name 2 = Title of spectrum 4 = Date and time 8 = Data collection info. 16 = Bench configuration 32 = Comments 64 = Filename
StartAreaBase	Start of the baseline region for corrected area measurement. This value is set by the CorrectedPeakArea command. See also EndAreaBase.	Valid X-axis values, in floating point.
StartAreaRegion	Start of the region for area measurement. This value is set by the CorrectedPeakArea command. See also EndAreaRegion.	Valid X-axis values, in floating point.
StartPeakBase	Start of the baseline region for corrected peak height measurement. This value is set by the CorrectedPeakHeight command. See also EndPeakBase.	Valid X-axis values, in floating point.
UncorrectedArea	Contains the uncorrected area after an Area operation.	(Read only.)
UncorrectedPeakHeight	Contains the uncorrected peak height after a Height operation.	(Read only.)
XandYDefaultAnnotation	Determines whether the Y value is also displayed when annotation is used.	True (both X and Y values are displayed) or False.

Display group parameters (continued)

Parameter Name	Description	Legal Values
XAxisMode	Sets the X-axis mode. Setting the mode to something other than NormalXAxis changes the X limits (XStart and XEnd) to some predetermined value. See also Spectrum XAxisID.	One of these strings: NormalXAxis 1SplitXAxis 2SplitXAxis WavelengthXAxis
XCrossHairLoc	X location of the spectral cursor (cross hairs).	Valid X-axis values, in floating point.
XCrossHairVal	Y value of the selected spectrum at XCrossHairLoc.	Valid Y-axis values, in floating point. (Read only.)
XEnd	The right limit of the X-axis.	X-axis values, such as 3204.6 or 491.45.
XStart	The left limit of the X-axis.	X-axis values, such as 3204.6 or 491.45.
YAxisMode	Sets the Y-axis mode. Causes new images of the spectra to be displayed using the specified mode. The Custom Scale mode uses the values in YStartScale and YEndScale as the Y limits of the display. See also Spectrum YAxisID.	One of these strings: FullScale MatchScale CustomScale CommonScale OffsetScale
YCrossHairLoc	Y location of the spectral cursor (cross hairs).	Valid Y-axis values, in floating point.
YCrossHairVal	X value of the selected spectrum at YCrossHairLoc.	Valid X-axis values, in floating point. (Read only.)
YEndScale	Lower Y limit of the Y-axis if Custom Scale mode is in effect.	Y-axis values, such as .56 or 87.3.
YStartScale	Upper Y limit of the Y-axis if Custom Scale mode is in effect.	Y-axis values, such as .56 or 87.3.

Gsanal group parameters

The parameters SeriesDelay, SeriesIntegrate, SeriesRepeat, SeriesTotal and BkgIntegrate do not directly control the data collection commands. They are used as parameters for saving values for external control of the main OMNIC data collection commands through DDE.

Parameter Name	Description	Legal Values
BkgIntegrate	Number of background scans to integrate.	Floating point number.
CurConcLimits	Table of concentration limit values.	Comma-separated string.
CurConcValues	Table of concentration values.	Comma-separated string.
CurReportComp	Current report component being accessed.	Integer.
GasBaseName	Base filename for report files. This excludes the extension.	Full DOS pathname.
GasCompName	Component name for the standard.	ASCII string.
GasConcentration	Gas standard concentration.	Floating point number.
GasConcUnit	Gas concentration unit that the GasConcentration value is reported in.	One of these integers: 1 = ppm 2 = percent 3 = degrees Celsius
GasMethName	Filename of the current quant method.	ASCII string.
GasMethTitle	Title of the current method. Saved with the report when the series is executed.	ASCII string.
GasPathlength	Gas pathlength in meters.	Floating point number.
GasPressure	Gas pressure in hectopascals.	Floating point number.
GasTemperature	Gas temperature in degrees Celcius.	Floating point number.

Gsanal group parameters (continued)

Parameter Name	Description	Legal Values
QuantState	Bit array of values indicating the state of the check boxes in the Quant Setup dialog box.	Bit and purpose: 0 = Concentration below confidence limit 1 = Concentration below 0 2 = Concentration below limit 16 = Use local parameters instead of specified ones
ReportCompUse	Saves the current component in the report.	True or False.
ReportConc	Saves the concentration values to disk.	True or False.
ReportDesc1	Title saved with the concentration report.	ASCII string.
ReportDesc2	Description saved with the concentration report.	ASCII string.
ReportError	Saves the error values to disk.	True or False.
ReportInfrared	Saves the infrared data to disk.	True or False.
ReportTitle1	Title of the first column of report data. The default is Phase.	ASCII string.
ReportTitle2	Title of the second column of report data. The default is Time.	ASCII string.
SeriesDelay	Series delay time in seconds.	Floating point number.
SeriesIntegrate	Series integration time in seconds.	Floating point number.
SeriesRepeat	Series repeat time in seconds.	Floating point number.
SeriesTotal	Total number of spectra to collect.	Floating point number.
SystemID	The system ID field that is saved with the concentration report.	String.

Library group parameters

The Library group parameters values are not updated until you select a library with the SelectLibrary command.

Parameter Name	Description	Legal Values
Filename	Filename of the library that contains the match.	DOS filename. (Read only.)
Path	Pathname of directory where the library was found.	DOS path. (Read only.)
Title	Library title.	ASCII string. (Read only.)

MenuStatus group parameters

The MenuStatus group parameters have values of Enabled or Disabled reflecting their current state in the OMNIC menu. These parameters are read only.

Parameter Name	Description (Menu - Command)	Legal Values
DeleteFile	File - Delete Files	Enabled or Disabled.
EnableLogin	File - Enable OMNIC Log-In	Enabled or Disabled.
Exit	File - Exit	Enabled or Disabled.
Export	File - Save	Enabled or Disabled.
ExportAs	File - Save As	Enabled or Disabled.
Import	File - Open	Enabled or Disabled.
LoadConfiguration	File - Open Configuration	Enabled or Disabled.
LoadOptions	File - Open Options	Enabled or Disabled.
LoadParameters	File - Open Parameters	Enabled or Disabled.
Login	File - Log In	Enabled or Disabled.

MenuStatus group parameters (continued)

Parameter Name	Description (Menu - Command)	Legal Values
NewLogin	File - Add User Name	Enabled or Disabled.
PageLayout	File - Page Layout	Enabled or Disabled.
Print	File - Print	Enabled or Disabled.
PrintSetup	File - Printer Setup	Enabled or Disabled.
SaveConfiguration	File - Save Configuration As	Enabled or Disabled.
SaveGroup	File - Save Group	Enabled or Disabled.
SaveOptions	File - Save Options	Enabled or Disabled.
SaveParameters	File - Save Parameters As	Enabled or Disabled.
Startlogging	File - Open Log	Enabled or Disabled.
Clear	Edit - Clear	Enabled or Disabled.
Copy	Edit - Copy	Enabled or Disabled.
Cut	Edit - Cut	Enabled or Disabled.
DeleteSelAnnotation	Edit - Delete Annotation	Enabled or Disabled.
EditMenu	Edit - Edit Menu	Enabled or Disabled.
EditToolBar	Edit - Edit Toolbar	Enabled or Disabled.
Options	Edit - Options	Enabled or Disabled.
PasteFocus	Edit - Paste	Enabled or Disabled.
PasteImage	Edit - Paste Image	Enabled or Disabled.
Select	Edit - Select All	Enabled or Disabled.
Undo	Edit - Undo	Enabled or Disabled.
BenchSetup	Collect - Optical Bench Setup	Enabled or Disabled.
CollectBackground	Collect - Collect Background	Enabled or Disabled.
CollectSample	Collect - Collect Sample	Enabled or Disabled.
CollectSetup	Collect - Collect Setup	Enabled or Disabled.

MenuStatus group parameters (continued)

Parameter Name	Description (Menu - Command)	Legal Values
DisplayBackground	Collect - Display Background	Enabled or Disabled.
DisplayReference	Collect - Display Spectral Quality Reference	Enabled or Disabled.
ExperimentSetup	Collect - Experiment Setup	Enabled or Disabled.
MatchSpectrumSettings	Collect - Match Spectrum Settings	Enabled or Disabled.
SetNewReference	Collect - New Spectral Quality Reference	Enabled or Disabled.
AutoFullScale	View - Automatic Full Scale	Enabled or Disabled.
CustomScale	View - Custom Scale	Enabled or Disabled.
DisplayLimits	View - Display Limits	Enabled or Disabled.
DisplaySetup	View - Display Setup	Enabled or Disabled.
FullScale	View - Full Scale	Enabled or Disabled.
HideSelectedSpectra	View - Hide Spectra	Enabled or Disabled.
LogDisplay	View - Show Log	Enabled or Disabled.
MatchScale	View - Match Scale	Enabled or Disabled.
OffsetScale	View - Offset Scale	Enabled or Disabled.
RedoScale	View - Redo Limit Change	Enabled or Disabled.
ShowRollZoom	View - Roll/Zoom Window	Enabled or Disabled.
ShowToolbar	View - Toolbar	Enabled or Disabled.
StackOverlay	View - Stack Spectra	Enabled or Disabled.
UndoScale	View - Undo Limit Change	Enabled or Disabled.
Absorbance	Process - Absorbance	Enabled or Disabled.
Accordian	Process - Normalize Frequency	Enabled or Disabled.
Add	Process - Add	Enabled or Disabled.
AutoBaseline	Process - Automatic Baseline Correct	Enabled or Disabled.
AutoSmooth	Process - Automatic Smooth	Enabled or Disabled.

MenuStatus group parameters (continued)

Parameter Name	Description (Menu - Command)	Legal Values
Baseline	Process - Baseline Correct	Enabled or Disabled.
Blank	Process - Blank	Enabled or Disabled.
Deresolve	Process - Change Data Spacing	Enabled or Disabled.
Derivative	Process - Derivative	Enabled or Disabled.
ExtractInterferogram	Process - Retrieve Interferograms	Enabled or Disabled.
fsd	Process - Fourier Self-Deconvolution	Enabled or Disabled.
Multiply	Process - Multiply	Enabled or Disabled.
NormalizeSpectrum	Process - Normalize Scale	Enabled or Disabled.
OtherConversions	Process - Other Conversions	Enabled or Disabled.
OtherCorrections	Process - Other Corrections	Enabled or Disabled.
PurgeCorrect	Process - Quant Purge Correct	Enabled or Disabled.
Reprocess	Process - Reprocess	Enabled or Disabled.
Smooth	Process - Smooth	Enabled or Disabled.
StraightLine	Process - Straight Line	Enabled or Disabled.
Subtract	Process - Subtract	Enabled or Disabled.
Transmittance	Process - Transmittance	Enabled or Disabled.
AddToLibrary	Analyze - Add to Library	Enabled or Disabled.
Average	Analyze - Average	Enabled or Disabled.
CalculateNoise	Analyze - Noise	Enabled or Disabled.
Compare	Analyze - QC Compare	Enabled or Disabled.
CreateLibrary	Analyze - Create Library	Enabled or Disabled.
LibraryNotebook	Analyze - Library Manager	Enabled or Disabled.
PeakPick	Analyze - Find Peaks	Enabled or Disabled.
Quantify	Analyze - Quantify	Enabled or Disabled.

MenuStatus group parameters (continued)

Parameter Name	Description (Menu - Command)	Legal Values
QuantSetup	Analyze - Quant Setup	Enabled or Disabled.
Search	Analyze - Search	Enabled or Disabled.
SearchSetup	Analyze - Library Setup	Enabled or Disabled.
TextSearch	Analyze - Text Search	Enabled or Disabled.
Variance	Analyze - Statistical Spectra	Enabled or Disabled.
ViewLibrary	Analyze - View Library	Enabled or Disabled.
AddBasisVector	Series - Add Basis Vector	Enabled or Disabled.
ChangeSeriesFormat	Series - Apply Function	Enabled or Disabled.
ChangeTitle	Series - Change Title	Enabled or Disabled.
CoaddRegion	Series - Coadd Region	Enabled or Disabled.
CollectSeries	Series - Collect Series	Enabled or Disabled.
CreateSeries	Series - Create File	Enabled or Disabled.
DeleteRegion	Series - Delete Time Region	Enabled or Disabled.
DoContour	Series - Show Contour/Waterfall	Enabled or Disabled.
ExportSeriesToGrams	Series - Export Series to GRAMS/3D	Enabled or Disabled.
HelpIndexSeries	Series - Series Help Topics	Enabled or Disabled.
OpenDataSet	Series - Open Data Set	Enabled or Disabled.
ResaveDataSet	Series - Truncate All Spectra	Enabled or Disabled.
RevertBasisVector	Series - Revert Basis Vector	Enabled or Disabled.
SeriesReproc	Series - Reprocess Series	Enabled or Disabled.
SeriesSetup	Series - Series Setup	Enabled or Disabled.
SetupContour	Series - Contour/Waterfall Setup	Enabled or Disabled.
ShowSeriesInfo	Series - Show Series Information	Enabled or Disabled.
CustomRamanX	Raman - Custom Shift	Enabled or Disabled.

MenuStatus group parameters (continued)

Parameter Name	Description (Menu - Command)	Legal Values
EnableRaman	Raman - Use Raman Accessory	Enabled or Disabled.
InstrumentCorrect	Raman - Instrument Correct	Enabled or Disabled.
RamanHelp	Raman - Raman Help Topics	Enabled or Disabled.
RamanX	Raman - Raman Shift	Enabled or Disabled.
ReverseRamanX	Raman - Unshift	Enabled or Disabled.
AddToNotebook	Report - Add To Notebook	Enabled or Disabled.
ChooseTemplate	Report - Template	Enabled or Disabled.
NewNotebook	Report - New Notebook	Enabled or Disabled.
PreviewReport	Report - Preview/Print Report	Enabled or Disabled.
ViewNotebook	Report - View Notebook	Enabled or Disabled.
850CollectB	SST - Collect Background	Enabled or Disabled.
850CollectS	SST - Collect Sample	Enabled or Disabled.
AmpMod	SST - Amplitude Modulation Step-Scan	Enabled or Disabled.
InputA	SST - External A Input	Enabled or Disabled.
MixQuad	SST - Phase Analysis	Enabled or Disabled.
PEMod	SST - Photoelastic Modulation	Enabled or Disabled.
PhaseMod	SST - Phase Modulation Step-Scan	Enabled or Disabled.
PhaseOps	SST - Phase Array Operations	Enabled or Disabled.
Ratio	SST - Ratio Spectra	Enabled or Disabled.
SMMod	SST - Synchronous Multiple Modulation	Enabled or Disabled.
SSTHelp	SST - SST Help Topics	Enabled or Disabled.
TimeRes	SST - Time-Resolved Step-Scan	Enabled or Disabled.
TRExtract	SST - Extract Time-Resolved	Enabled or Disabled.
VCDCalibrate	SST - VCD Calibrate	Enabled or Disabled.

MenuStatus group parameters (continued)

Parameter Name	Description (Menu - Command)	Legal Values
OpenMap	Map - Open Map	Enabled or Disabled.
SaveMap	Map - Save Map As	Enabled or Disabled.
ShowMapInfo	Map - Show Map Info	Enabled or Disabled.
SetDisplayOptions	Map - Display Options	Enabled or Disabled.
ApplyFunctionToMap	Map - Apply Function	Enabled or Disabled.
MapReprocess	Map - Reprocess Map	Enabled or Disabled.
ExportProfile	Map - Save Profile As CSV Text	Enabled or Disabled.
ExportProfileToGrams	Map - Enhanced 3-D Display	Enabled or Disabled.
ResaveMapDataSet	Map - TruncateAll Spectra	Enabled or Disabled.
ExtractLineMap	Map - ExtractLineMap	Enabled or Disabled.
MapHelp	Map - Atlas Help Topics	Enabled or Disabled.
CascadeWindows	Window - Cascade Windows	Enabled or Disabled.
NewWindow	Window - New Window	Enabled or Disabled.
TileWindows	Window - Tile Windows	Enabled or Disabled.
About	Help - About OMNIC	Enabled or Disabled.
HelpAMBHATR	Help - Avatar Multi-Bounce HATR	Enabled or Disabled.
HelpASBHATR	Help - Avatar Single-Bounce HATR	Enabled or Disabled.
HelpDiffRef	Help - Avatar Diffuse Reflectance	Enabled or Disabled.
HelpFTIRTheory	Help - Beginner's Guide to FT-IR	Enabled or Disabled.
HelpGettingStarted	Help - Getting Started With OMNIC	Enabled or Disabled.
HelpHardware	Help - Installing Hardware	Enabled or Disabled.
HelpIndex	Help - OMNIC Help Topics	Enabled or Disabled.
HelpInstall	Help - Avatar Installation Wizard	Enabled or Disabled.
HelpLearnAddSub	Help - Using Spectral Math	Enabled or Disabled.

MenuStatus group parameters (continued)

Parameter Name	Description (Menu - Command)	Legal Values
HelpLearnAnalyze	Help - Analyzing a Spectrum	Enabled or Disabled.
HelpLearnBaseline	Help - Correcting a Spectrum's Baseline	Enabled or Disabled.
HelpLearnCollect	Help - Collecting a Spectrum	Enabled or Disabled.
HelpLearnDisplay	Help - Working With Displayed Spectra	Enabled or Disabled.
HelpLearnReports	Help - Creating Reports	Enabled or Disabled.
HelpMBHATR	Help - ARK Multi-Bounce HATR	Enabled or Disabled.
HelpParts	Help - Replacing Parts	Enabled or Disabled.
HelpSampleTechniques	Help - Choosing a Sampling Technique	Enabled or Disabled.
HelpSBHATR	Help - Single-Bounce/Multi-Bounce HATR	Enabled or Disabled.
HelpSpectrometerTour	Help - Spectrometer Tour	Enabled or Disabled.
HelpTechSupport	Help - Technical Support	Enabled or Disabled.
HelpTroubleshooting	Help - Troubleshooting	Enabled or Disabled.
HelpUsingHelp	Help - Using Help	Enabled or Disabled.

Options group parameters

The table below describes the Options group parameters. The Description column says on which tab of the Options dialog box the OMNIC feature is located (if applicable).

Parameter Name	Description	Legal Values
AnnotateAllSpec	Initial value of Display AllAnnotation when a new spectral window is created. (Window tab.)	True or False.
AnnotateX&Y	Initial value of Display XandYDefaultAnnotation when a new spectral window is created. (Window tab.)	True or False.
AnnotOrientation	Text orientation of annotation.	Either of these strings: Parallel or Perpendicular.
AnnotationTextColor	Color of annotation text. (View tab, Colors button.)	RGB value such as 255,0,0 for red. (Color dialog box of View Page.) R, G and B are numbers in the range 0 to 255.
AutoFullScale	Controls the Automatic Full Scale command in the View menu.	True or False.
AutoStack	Initial value of Display AutoStack when a new spectral window is created. (Window tab.)	True or False.
AxisColor	Controls the color of the axis lines. (View tab.)	RGB value such as 255,0,0 for red. (Color dialog box of View Page.) R, G and B are numbers in the range 0 to 255.
AxisLabelColor	Controls the color of the axis labels. (View tab.)	RGB value such as 255,0,0 for red. (Color dialog box of View Page.) R, G and B are numbers in the range 0 to 255.

Options group parameters (continued)

Parameter Name	Description	Legal Values
BaseTitleID	Sequence number used for automatic titling option. Used with DefaultBaseTitleStr.	Number in the range 0 to 64,000.
Benchpolling	False turns off the Smart Accessory checks and spectrometer diagnostic polling.	True or False.
BottomMargin	Bottom print margin in centimeters. (Print tab.)	Floating point number in the range 1 to 64,000 with increments of 0.1 centimeter.
ClipboardHorizResol	Horizontal resolution of WMFs put on the Clipboard and written to disk.	Number in the range 200 to 64,000. Not recommended to exceed 2,000.
ClipboardVertResol	Vertical resolution of WMFs put on the Clipboard and written to disk.	Number in the range 200 to 64,000. Not recommended to exceed 2,000.
CloseWinPrompt	Controls the automatic closing of task windows. (Process tab.)	True or False.
CollectPrompt	Controls the prompting to insert the sample or prepare for background collection. (Collect tab.)	True or False.
CollectTitlePrompt	Controls the prompting for the titles of collected spectra. (Collect tab.)	One of these strings: Before After DateTime AutoFileName AutoTitle FileDateTime TitleDateTime

Options group parameters (continued)

Parameter Name	Description	Legal Values
ConnectAnnotation	Initial value of Display ConnectAnnotation when a new spectral window is created. (Window tab.)	True or False.
CO2Refname (letter O - not zero)	Filename of the spectrum to use for the CO2 reference. (Process tab, Corrections.)	
DefaultBaseTitleStr	The base name used by the automatic titling option for newly collected spectra. Used with BaseTitleID. (Collect tab.)	Four-character string.
DisplayMode	Initial value of Display Mode when a new spectral window is created. (Window tab.)	See Display Mode.
ForceBWCopY	Controls whether Clipboard images are done in black and white instead of in color.	True or False.
ForceBWPrint	Controls whether printing of spectra is done in black and white instead of in color.	True or False.
GaugeFont	Font used for gauge labels. (View tab.)	Font. All fonts are set as <style>, <size>, <face>; for example, Bold, 12, Times Roman. Styles can be Regular, Italic or Bold.
H2ORefname (letter O - not zero)	Filename of the spectrum to use for the H2O reference. (Process tab, Corrections.)	
HiddenTitleFont	Font used for titles of hidden spectra in the title box. (File tab.)	Font.
InitialAutoSaveDir	Directory used for saving spectra automatically. (File tab.)	Any valid path.

Options group parameters (continued)

Parameter Name	Description	Legal Values
InitialLogDir	Initial directory for opening log files. (File tab.)	Any valid path.
InitialMacroDir	Initial directory for macros (used by Macros\Basic). (File tab.)	Any valid path.
InitialOptionsDir	Initial directory for option files. (File tab.)	Any valid path.
InitialParamDir	Initial directory for parameter files. (File tab.)	Any valid path.
InitialQuantDir	Initial directory for quant method files. (File tab.)	Any valid path.
InitialSearchDir	Initial directory for creating user libraries. (File tab.)	Any valid path.
InitialSeriesDir	Initial directory for series data sets. (File tab.)	Any valid path.
InitialSpecDir	Initial directory for spectra. (File tab.)	Any valid path.
InitMappingDir	Initial directory for map files (for Atlas).	Any valid path.
InitReportDir	Initial directory for report templates.	Any valid path.
LeftMargin	Left margin for printing, in centimeters. (Print tab.)	Floating point number in the range 1 to 64,000, with increments of 0.1 centimeter.
LibPaths	List of directories to look for libraries in. (Process tab.)	Directories separated by a “;”.
LibViewStyle	Determines whether spectra are sorted by title or by sequence number when a library is viewed with View Library. (Process tab.)	ByIndex or ByTitle.

Options group parameters (continued)

Parameter Name	Description	Legal Values
LogTxt	Controls how a log file is saved. If TRUE, the file is saved as an RTF file. If FALSE, the file is saved as text. (File tab.)	True or False.
NormalizeLaserOnCollect	State of the Normalize Frequency option. (Collect tab.)	True or False.
NormalizeLaserOnRead	State of the Normalize Frequency option. (File tab.)	True or False.
NewCollectWin	Determines whether newly collected spectra are placed in a new spectral window. (Collect tab.)	True or False
NewDataWin	Determines whether spectra being opened are placed in a new spectral window. (File tab.)	True or False
NumHits	Number of library matches to report. (Process tab.)	Integer number in the range 1 to 99.
NumPanels	Initial value of Display Panels when a new spectral window is created. (Window tab.)	Integer number in the range 1 to 30.
OverlayTitles	Initial value of Display OverlayTitles when a new spectral window is created. (Window tab.)	True or False.
OverwritePrompt	Determines whether a warning is displayed when a file is about to be overwritten by the Save As command. (File tab.)	True or False.

Options group parameters (continued)

Parameter Name	Description	Legal Values
PrintAnnotFont	Font used to print annotation. (Print tab.)	Font. All fonts are set as <style>, <size>, <face>; for example, Bold, 12, Times Roman. Styles can be Regular, Italic or Bold.
PrintAxisLabelFont	Font used to print axis labels. (Print tab.)	Font.
PrintAxisNumFont	Font used to print axis numbers. (Print tab.)	Font.
PrintAxisThickness	Thickness of printed axes. (Print tab.)	Integer number in the range 1 to 6.
PrinterOrientation	Orientation of printed output. (Print tab.)	Portrait or Landscape.
PrintSamplingInfoFont	Font used to print sampling information. (Print tab.)	Font.
PrintSpecHdrFont	Font used to print the collection and processing information for a spectrum. (Print tab.)	Font
PrintSpecLineThickness	Thickness of the lines in printed spectra. (Print tab.)	Integer number in the range 1 to 6.
PrintTickMarkThickness	Thickness of printed axis tick marks. (Print tab.)	Integer number in the range 1 to 6.
PrintXaxis	Determines whether the X-axis is printed. (Print tab.)	True or False.
PrintYaxis	Determines whether the Y-axis is printed. (Print tab.)	True or False.

Options group parameters (continued)

Parameter Name	Description	Legal Values
PromptSpecTime	Prompts to save a modified spectrum when its window is closed. This is the Prompt Before Closing Spectral Windows option. (Process tab.)	0 or 1. (1 = checked.)
PromptForWinTitle	Determines whether to prompt for a title when new spectral windows are created. (Window tab.)	True or False.
ReadoutFont	Font used for X and Y values and other information displayed above the palette, text displayed in the Edit Menu and Experiment Setup dialog boxes, and the text used to display the Experiment drop-down list box and the Bench Status indicator. (View tab.)	Font.
RightMargin	Right margin for printing, in centimeters. (Print tab.)	Floating point number in the range 1 to 64,000, with increments of 0.1 centimeter.
SamplingInfoColor	Color of displayed sampling information. (View tab, Colors button.)	RGB value, such as 255,0,0 for red. (Color dialog box of View Page.) R, G and B are numbers in the range 0 to 255.
SamplingInfoConfig	Initial value of Display SamplingInfo when a new spectral window is created. (Window tab.)	See Display SamplingInfo.
SaveExtention	Default extension used when a Save dialog box is displayed or an extension is not specified in the DDE Save command.	Text string that is one of the OMNIC file formats. (Read only.)

Options group parameters (continued)

Parameter Name	Description	Legal Values
ShowApertureWarning	Controls whether or not a message is displayed when an aperture is too large to provide the selected resolution.	True or False.
ShowGrid	Initial value of Display ShowGrid when a new spectral window is created. (Window tab.)	True or False.
ShowInfoBox	Determines whether the information box is printed at the bottom of printouts. (Print tab.)	True or False.
ShowOuterBox	Determines whether the outer box is printed. (Print tab.)	True or False.
ShowPrintGrid	Determines whether a grid is printed. (Print tab.)	True or False.
ShowSamplingInfo	Initial value of Display SamplingInfo when a new spectral window is created. (Window tab.)	True or False.
ShowViewGrid	Initial value of Display ShowGrid when a new spectral window is created. (Window tab.)	True or False.
ShowXAxis	Initial value of Display ShowXAxis when a new spectral window is created. (Window tab.)	True or False.
ShowYAxis	Initial value of Display ShowYAxis when a new spectral window is created. (Window tab.)	True or False.
SigDigits	The number of decimal places used for annotation, including annotation created by the Find Peaks command. (View tab.)	Integer number in the range 0 to 5.

Options group parameters (continued)

Parameter Name	Description	Legal Values
SortPeaksOn	Whether to sort peaks in a peak table by position or intensity.	Position or Intensity.
SpectrumBkgColor	Controls the color of the spectral window background. (View tab, Colors button.)	White or Black.
SpectrumColor1	First available spectrum color. (View tab, Colors button.)	RGB value. R, G and B are numbers in the range 0 to 255.
SpectrumColor2	Second available spectrum color. (View tab, Colors button.)	RGB value. R, G and B are numbers in the range 0 to 255.
SpectrumColor3	Third available spectrum color. (View tab, Colors button.)	RGB value. R, G and B are numbers in the range 0 to 255.
SpectrumColor4	Fourth available spectrum color. (View tab, Colors button.)	RGB value. R, G and B are numbers in the range 0 to 255.
SpectrumColor5	Fifth available spectrum color. (View tab, Colors button.)	RGB value. R, G and B are numbers in the range 0 to 255.
SpectrumColor6	Sixth available spectrum color. (View tab, Colors button.)	RGB value. R, G and B are numbers in the range 0 to 255.
SpectrumColor7	Seventh available spectrum color. (View tab, Colors button.)	RGB value. R, G and B are numbers in the range 0 to 255.
SpectrumColor8	Eighth available spectrum color. (View tab, Colors button.)	RGB value. R, G and B are numbers in the range 0 to 255.

Options group parameters (continued)

Parameter Name	Description	Legal Values
Threshold	Threshold value for library matches. (Process tab.)	Integer number in the range 1 to 100.
TickMarkColor	Color of displayed axis tick marks. (View tab, Colors button.)	RGB value. R, G and B are numbers in the range 0 to 255.
TitleFont	Font used for titles of visible (as opposed to hidden) spectra in the title box. (View tab.)	Font. All fonts are set as <style>, <size>, <face>; for example, Bold, 12, Times Roman. Styles can be Regular, Italic or Bold.
TopMargin	Top margin for printing, in centimeters. (Print tab.)	Floating point number in the range 1 to 64,000, with increments of 0.1 centimeter.
UseDir	Determines whether initial directories are used or the last used directory. (File tab.)	1 or 0.
UseExtention	Determines whether the default extension is used by the Save As command. (File tab.)	True or False.
UseLinePatternAsColor	Determines whether line patterns are used to represent colors when printing spectra. (Print tab.)	True or False.
UseOldPeakSensitivity	Choice of old or new peak sensitivity algorithm.	True or False.
ViewAnnotFont	Font used to display annotation. (View tab.)	Font. All fonts are set as <style>, <size>, <face>; for example, Bold, 12, Times Roman. Styles can be Regular, Italic or Bold.

Options group parameters (continued)

Parameter Name	Description	Legal Values
ViewAxisLabelFont	Font used to display axis labels. (View tab.)	Font. All fonts are set as <style>, <size>, <face>; for example, Bold, 12, Times Roman. Styles can be Regular, Italic or Bold.
ViewAxisNumFont	Font used to display axis numbers. (View tab.)	Font. All fonts are set as <style>, <size>, <face>; for example, Bold, 12, Times Roman. Styles can be Regular, Italic or Bold.
ViewLogFont	Font used to display and print log text. (View tab.)	Font. All fonts are set as <style>, <size>, <face>; for example, Bold, 12, Times Roman. Styles can be Regular, Italic or Bold.
ViewSIFont	Font used to display sampling information. (View tab.)	Font. All fonts are set as <style>, <size>, <face>; for example, Bold, 12, Times Roman. Styles can be Regular, Italic or Bold.
ViewSpecHdrFont	Font used to display text in the Collection And Processing Information window. (View tab.)	Font. All fonts are set as <style>, <size>, <face>; for example, Bold, 12, Times Roman. Styles can be Regular, Italic or Bold.
ViewSpecLineThickness	Thickness of lines used to display spectra. (View tab.)	Integer value in the range 1 to 6.
ViewTickMarkThickness	Thickness of displayed axis tick marks. (View tab.)	Integer value in the range 1 to 6.
XAxisMode	Initial value of Display XAxisMode when a new spectral window is created. (Window tab.)	See Display XAxisMode.

Options group parameters (continued)

Parameter Name	Description	Legal Values
XEnd	Initial value of Display XEnd when a new spectral window is created. (Window tab.)	See Display XEnd.
XStart	Initial value of Display XStart when a new spectral window is created. (Window tab.)	See Display XStart.
YProcessChecking	Determines whether checking is done on Y-axis units when process functions such as subtraction are done on spectra. If this parameter is FALSE, processing is allowed on spectra with “nonstandard” Y-axis units. (Process tab.)	True or False.

Quantify group parameters

Parameter Name	Description	Legal Values
AboveConfLimit	State of the Report option for the standard error check, uncertainty value check, match value check or distance value check	String: True or False.
AboveConfLimitAction	Action for the AboveConfLimit warning.	String: Warn, or Warn and don't report.
AboveConfLimitMessage	Tab-separated list of AboveConfLimit warning text displayed for all components in the Quantify dialog box.	String.
AboveConfLimitThreshold	Threshold value for AboveConfLimit warning.	Floating point number.
AboveConfLimitWarning	Tab-separated list of the state of the AboveConfLimit warning for all components.	String: True or False.
AppendResults	State of the Report option to append results to the spectrum contents.	String: True or False.
ConfidenceValues	Tab-separated list of all the values in the Quantify dialog box for standard error, uncertainty, distance to class, or search index. Not used for simple Beer's law, similarity match, or measurement only.	String of floating point numbers.
DataCollParamCheck	State of the Report option for the data collection parameter check.	String: True or False.
DataCollParamCheckAction	Action for the DataCollParam warning.	String: Warn, or Warn and don't report.
DataCollParamCheckMessage	DataCollParamCheck warning text.	String.
DataCollParamCheckWarning	State of DataCollParamCheck reported in the Quantify dialog box.	String: True or False.

Quantify group parameters (continued)

Parameter Name	Description	Legal Values
DistanceThreshold	Threshold value for the distance value warning.	Floating point number.
FitValue	The measurement region fit value reported in the Quantify dialog box.	Floating point number.
FullSpecCheck	State of the Report option for the full spectrum check.	String: True or False.
FullSpecCheckAction	Action for the FullSpecCheck warning.	String: Warn, or Warn and don't report.
FullSpecCheckMessage	FullSpecCheck warning text.	String.
FullSpecCheckThreshold	Threshold value for FullSpecCheck warning.	Floating point number.
FullSpecCheckWarning	State of the full spectrum check warning. True if the warning has been triggered.	String: True or False.
IpMMSignificantDigits	Tab-separated list of digits to report for each component in the order they appear in the Digits column on the Components tab.	String of integer numbers.
MatchThreshold	Threshold value for the match value warning.	Floating point number.
NumResultsToReport	Number of classes reported for discriminant analysis methods. Number of matches reported for search standards.	Integer value between 1 and the number of classes or standards.
OtherReportDecimalDigits	Number of digits to report in results with classification method types.	Integer.
OutsideAcceptanceLimitsAction	Action for the OutsideAcceptanceLimits warning.	String: Warn, or Warn and don't report.

Quantify group parameters (continued)

Parameter Name	Description	Legal Values
OutsideAcceptanceLimitsMessage	Tab-separated list of OutsideAcceptanceLimits warning text displayed for all components in the Quantify dialog box.	String.
OutsideAcceptanceLimitsWarning	Tab-separated list of the state of the OutsideAcceptanceLimits warning for all components.	String: True or False.
OutsideAcceptLimits	State of the Report option for the acceptance limits check.	String: True or False.
OutsideAnalLimits	State of the Report option for the analysis limits check.	String: True or False.
OutsideAnalLimitsAction	Action for the OutsideAnalLimits warning.	String: Warn, or Warn and don't report.
OutsideAnalLimitsMessage	Tab-separated list of OutsideAnalLimits warning text displayed for all components in the Quantify dialog box.	String.
OutsideAnalLimitsWarning	Tab-separated list of the state of the OutsideAnalLimits warning for all components.	String: True or False.
PassFailMessage	Tab-separated list of PassFail warning text displayed for all components in the Quantify dialog box.	String.
PassFailThreshold	Threshold value for the PassFail warning.	Floating point number.
PassFailWarning	Tab-separated list of the state of the PassFail warning for all components.	String: True or False.
Pathlength	Pathlength value as reported in the Quantify dialog box.	Floating point number.

Quantify group parameters (continued)

Parameter Name	Description	Legal Values
PathlengthUnits	Unit for the pathlength value as reported in the Quantify dialog box.	String.
QMethodFilename	Full path and filename of the quant method file used for the last Quantify operation.	String.
QMethodTitle	Title of the quant method used for the last Quantify operation.	String.
QuantifyError		
QuantifyErrorMessage		
RegionSpecCheck	State of the Report option for the measurement region spectrum check.	String: True or False.
RegionSpecCheckAction	Action for the RegionSpecCheck warning.	String: Warn, or Warn and don't report.
RegionSpecCheckMessage	RegionSpecCheck warning text.	String.
RegionSpecCheckThreshold	Threshold value for the RegionSpecCheck warning.	Floating point number.
RegionSpecCheckWarning	State of the RegionSpecCheck warning. True if the warning has been triggered.	String: True or False.
Results	Tab-separated list of all the values in the Quantify dialog box for concentration, match value, or measurement value. For discriminant analysis, the list contains the zero-based index values for the classes in the Classification column (that is, 0 = index 1).	String of floating point numbers.
ResultUnits	Tab-separated list of units for components in the order they appear in the Units column in the Quantify dialog box.	String.

Quantify group parameters (continued)

Parameter Name	Description	Legal Values
ShowConfValues	State of the Report option for uncertainty values, match values, distance values, and standard error of measurement.	String: True or False.
ShowFitValue	State of the Report option for fit values.	String: True or False.
ShowPassFail	State of the Report option for the pass/fail indicator	String: True or False.
ShowPathLength	State of Report option for pathlength.	String: True or False.
ShowQMethodFileName	State of the Report option for the quant method filename.	String: True or False.
ShowQMethodTitle	State of the Report option for the quant method title.	String: True or False.
ShowResultUnits	State of the Report option for concentration units or measurement units.	String: True or False.
ShowSpecCollTime	State of the Report option for the spectrum collection date and time.	String: True or False.
ShowSpecFilename	State of the Report option for the spectrum filename.	String: True or False.
ShowSpecTitle	State of the Report option for Spectrum Title.	String: True; False
SimilarityAlgorithm	Match Type parameter of the Other tab for similarity match methods.	String.
SpecCollTime	Collection time stamp of the spectrum that was quantified. (Use GU4_Time2String to convert to date and time format.)	Number code.
SpecFilename	Full path and filename of the spectrum that was quantified.	String.
SpecTitle	Title of the spectrum that was quantified.	String.

QuantMethod group parameters

These parameters are undefined until you use the QuantSetup DDE command or select Quant Setup from the Analyze menu. These parameters are read only.

Parameter Name	Description	Legal Values
Filename	Quant method filename.	DOS filename string. (Read only.)
NumComponents	Number of components.	Integer. (Read only.)
Title	Quant method title.	String. (Read only.)

Raman_Laser group parameters

Only the Laser and Current parameters are accessible in the user interface on a Raman 950 system, and only the Laser and Power parameters are accessible in the user interface on the FT-Raman Module.

Parameter Name	Description	Legal Values
Current	Amount of current, in amperes, used by the laser.	Floating point number from 0.0 to 15.0.
Laser	Turns the Raman excitation laser on or off.	On or Off.
Power	Amount of power, in watts, used by laser.	Floating point number from 0.0 to 1.5.
Temp	Temperature, in degrees Celsius, of the laser diode array.	Floating point number from 0.0 to 60.0. (Read only.)
Time_Used	Number of hours that the laser has been used.	Integer number of hours. (Read only.)

Raman_ViewStage group parameters

Parameter Name	Description	Legal Values
XMove	This parameter has two functions. It can set the number of steps to move the motorized stage along the X axis, or it can obtain the current position (in steps) of the motorized stage on the X axis.	Integer values between -2500 and 2500. (The physical limit of travel is reached at 2500 steps from the 0 position.)
YMove	This parameter has two functions. It can set the number of steps to move the motorized stage along the Y axis, or it can obtain the current position (in steps) of the motorized stage on the Y axis.	Integer values between -2500 and 2500. (The physical limit of travel is reached at 2500 steps from the 0 position.)
ZMove	This parameter has two functions. It can set the number of steps to move the motorized stage along the Z axis, or it can obtain the current position (in steps) of the motorized stage on the Z axis.	Integer values between -1500 and 1500. (The physical limit of travel is reached at 1500 steps from the 0 position.)
Lamp	Turns the power to the video/sample illumination on or off.	On, Off

Raman_Microprobe group parameters

Parameter Name	Description	Legal Values
InBeam	Specifies whether the optional microscope is in the sample beam.	Yes or No.

Raman_Mot_Stage group parameters

Parameter Name	Description	Legal Values
XMove	Integer number of steps to move the motorized stage from the current position.	Integer number in the range -410 to 410.
YMove	Current position (in steps) of the motorized stage from the end stop.	Integer number in the range -410 to 410.

Raman_Polarizer group parameters

Parameter Name	Description	Legal Values
InBeam	Specifies whether the optional polarizer is in the sample beam.	Yes or No.
Rotate	Rotation angle of the polarizer when it is in the sample beam.	0 or 90.

Report group parameters

Parameter Name	Description	Legal Values
Landscape	Determines the orientation of the printed report. True = landscape, and False = portrait.	True or False.
SavedName	Filename and path used to save the template.	String.
MaxFieldID	Maximum field ID number in the template.	Read only.
NumPages	Number of pages in the report template.	Read only.
LeftMargin	Left margin of the report, in millimeters.	0 to paper size.
TopMargin	Top margin of the report, in millimeters.	0 to paper size.
RightMargin	Right margin of the report, in millimeters.	0 to paper size.
BottomMargin	Bottom margin of the report, in millimeters.	0 to paper size.

Result group parameters

This group of parameters lets you retrieve the results of a command or identify what type of error may have occurred. All are read only. The format of the Result Current parameter value is different for every command. See the command description for an example of the format returned.

Parameter Name	Description	Legal Values
Array	Result array. Holds a numeric list of the results of some spectrum operations so that external programs can extract them. The result array is populated by these commands: PeakHeight, CorrectedPeakHeight, FWHH, Average, Minmax, Noise, PeakPick and Quantify. The Array parameter is initialized to None and set to Error when an error occurs in one of these commands. It can also be set to Error when other commands fail, depending on where the error is detected.	Format varies depending on the command that was issued. In general, it follows the format of Result Current except that no text is included. The format is usually a list of numerical values separated by a Windows list character (comma in the U.S.A.).
Compare	Results of a QC Compare search.	(Read only.)
Current	Results of an operation.	Format depends on the last operation. (Read only.)
Error	A text string that describes the last error that occurred in processing a command or parameter.	String that describes the last error. (Read only.)
ExtendedError	A text string used for debugging.	Two hexadecimal numbers that give data about the last error. (Read only.)
Peaktable	Results of a Find Peaks operation.	(Read only.)
Quant	Text of the complete Quantify dialog box, including tabs, carriage returns and line feeds.	String.
Search	Results (top ten matches only) of the last library search operation.	If no search has been done, this will be an unknown parameter. (Read only.)

Search group parameters

Parameter Name	Description	Legal Values
DoExpertSearch	Selects the search expert option	True or False.
DoRegionSearch	Selects a multiple-region library search.	True or False.
EndRange	X-axis value corresponding to the end of the region to be searched.	Floating point number in the same unit as the X-axis.
IgnoreFilters	Determines whether a prefilter search is done.	True (prefilter search is not done) or False.
StartRange	X-axis value corresponding to the start of the region to be searched.	Floating point number in the same unit as the X-axis.

SearchHit group parameters

These parameters are not valid until you use the SelectHit command to select which library match you want information on. See the GetLibSpectrum and GetLibSpectrumTitle commands for information on how to retrieve search matches.

Parameter Name	Description	Legal Values
Filename	Filename of the library containing the match.	DOS filename. (Read only.)
Index	Index number of the library match.	Integer number. (Read only.)
MatchValue	Match value of the library match.	Floating point number. (Read only.)
Path	Pathname of directory where library was found.	DOS path. (Read only.)

Series group parameters

Parameter Name	Description	Legal Values
Bidirectional	Specifies a bi-directional rapid scan collection.	True or False.
End1	List of end ranges for live reconstruction types.	List of floating point values.
End2	List of second end ranges for live reconstruction types.	List of floating point values.
EndBase1	List of baseline end values for live reconstruction types.	List of floating point values.
EndBase2	List of second baseline end values for live reconstruction types.	List of floating point values.
ExternalTrigger	Waits for an external trigger before starting collection.	True or False.
GSOffset	Data point offset from the interferogram peak for the start of Gram-Schmidt vectors.	Integer number of data points. The default is 10.
MaxRange	Maximum X-axis value.	Floating point value.
MaxRange2	Maximum Z-axis value.	Floating point value.
MinimizeScanLen	Whether to minimize the scan length by using the fewest possible peak points as extra points at the end of the scan.	True or False.
MinRange	Minimum X-axis value.	Floating point value.
MinRange2	Minimum Z-axis value.	Floating point value.
NumBkgScans	Number of scans to coadd to produce the background for the series collection.	Integer number of scans. The default is 10.
NumGSpoints	Number of interferogram data points to use for each Gram-Schmidt vector.	Integer number of data points. The default is 100.
NumGSVectors	Number of vectors to use for the Gram-Schmidt basis set.	Integer value. The default is 10.

Series group parameters (continued)

Parameter Name	Description	Legal Values
ReconComp	List of quant components used in live reconstructions.	List of integer values.
ReconMaxY	List showing the maximum Y value for each live reconstruction.	List of floating point values.
ReconMinY	List showing the minimum Y value for each live reconstruction.	List of floating point values.
ReconSelect	List of live reconstructions selected for use.	List of Boolean values.
Recontype	List of live reconstruction types.	List of integer values.
RepeatTime	Time interval for sample collection.	Floating point value.
SampleID	Series title.	Text string.
SaveCSV	Whether to save the quant results in a CSV file.	True or False.
SCNumPanes	Number of panes in the series reconstruction window to display (a scroll bar will allow display of the rest).	Integer number of panes. 1 to 5.
ShowSCDisplay	Whether to display the live series reconstruction window.	True or False.
ShowSCSpectrum	Whether to display the live spectrum.	True or False.
Start1	List of the start ranges for live reconstruction types.	List of floating point values.
Start2	List of the second start ranges for live reconstruction types.	List of floating point values.
StartBase1	List of baseline start values for live reconstruction types.	List of floating point values.
StartBase2	List of second baseline start values for live reconstruction types.	List of floating point values.
StepSize	Step size of the X-axis.	Floating point value.

Series group parameters (continued)

Parameter Name	Description	Legal Values
StepSize2	Step size of the Z-axis.	Floating point value.
TimeUnit	Time in minutes or seconds.	Integer Value. 0 = Minutes. 1 = Seconds.
TotalTime	Sets the collection time (duration) of the series collection after the start signal is received. This value is in minutes for the GC/IR and TGA/IR types and in seconds for the RapidScan type.	Floating point value. The default is 20.
Type	Indicates the type of series for this series collection. The default setting is GC/IR.	One of these strings: GC/IR TGA/IR Kinetics Rapid Scan Real Time
UseRepeat	Whether to use the repeat time interval in the collection.	True or False.
ZLongLabel	Axis long label (overrides Zunits).	Text string.
ZLongLabel2	Second axis long label (overrides Zunits).	Text string.
ZShortLabel	Axis short label (overrides Zunits).	Text string.
ZShortLabel2	Second axis short label (overrides Zunits).	Text string.
Zunits	Axis unit.	Integer axis type.
ZUnits2	Second axis unit.	Integer axis type.

SpecImage group parameters

The SpecImage group parameters work only when one spectrum is selected. If multiple spectra are selected, they fail.

Parameter Name	Description	Legal Values
Hidden	Determines whether the selected spectrum is hidden.	True or False.
InherentColor	Sets the inherent color of the selected spectra. Setting this value will change the color that is used to display all of the currently selected spectra when they are not selected. Note that setting this field triggers all currently selected spectra to change their inherent color. The value of this field is then meaningless and has no further effect on newly selected spectra.	Integer value from 1 to 8 that corresponds to the pen defined in OMNIC.INI.
Selected	Indicates whether a spectrum is currently selected. May be set to 0 so that no spectra are selected. However, this parameter may not be set to 1. Use the Select command to select spectra.	0 = No spectra are selected. 1 = A spectrum is currently selected.

Spectrum group parameters

These parameters give information about how a spectrum was collected and are mostly read only.

Parameter Name	Description	Legal Values
ADC	Number of digitizer bits.	16 or 20. (Read only.)
Aperture	Aperture setting.	Floating point number in the range 0.0 to 150.0. (Read only.)
ApodizationData	Number used with some apodization functions.	Integer. (Read only.)
ApodizationFunction	Indicates the type of apodization function to be used for this data collection.	One of these strings: Happ-Genzel Triangular Boxcar N-B weak N-B medium N-B strong Blackman-Harris (Read only.)
BeamSPLID	ID of the Beamsplitter.	One of these integers: 0 = GeKBr 1 = Si Quartz 2 = Si CaF2 3 = Quartz 5 = ZnSe 7 = Ge CSi 8 = BaF2 10 = Si 20 = Mylar® 3 21 = Mylar 625 22 = Mylar 125 23 = Mylar 25 24 = Mylar 100 25 = Mylar 50 30 = XT-KBr (Read only.)

Spectrum group parameters (continued)

Parameter Name	Description	Legal Values
BenchID	ID of the spectrometer that the data was collected on.	One of these strings: Unknown bench 5A, early 5-DX/SX bench (flex pivot modulator) 10-MX/DX, ECO, 3600 bench (air bearing modulator) 20-DX/SX/DBX/SBX bench (air bearing modulator) 5B, later 5-DX/SX bench 60-SX 20-F 170-SX 200-SX Converted from SX, unknown bench Varian UV Perkin-Elmer 320 UV Perkin-Elmer 330 UV Perkin-Elmer 580A IR Perkin-Elmer 580B IR Acculab IR 8210 8220 205

Spectrum group parameters (continued)

Parameter Name	Description	Legal Values
BenchID (continued)		205 800-SX 510M Retrieved from Deresolved Library 5-PC IR-44 20-PC 520M 740M 5020 5040 Magna System 550 Magna System 750 Magna System 850 Impact 410 Impact 420 Raman System 950 Protégé™ System 460 (Read only.)
BkgGain	Signal gain used to collect a background.	(Read only.)

Spectrum group parameters (continued)

Parameter Name	Description	Legal Values
CollectTime	Time of data collection in Universal Coordinated Time; that is, the number of seconds elapsed since midnight (00:00:00), December 31, 1899. For more information, refer to the DateSerial command information in the Visual Basic documentation.	Time in Universal Coordinated Time format. (Read only.)
Comment	Comment text.	Text string.
CustomInfo1	First custom information field.	Any text up to 63 characters.
CustomInfo2	Second custom information field.	Any text up to 63 characters.
CustomXAxis	Custom X-axis to override the axis label based on the current data format.	Any text up to 149 characters.
CustomXAxisAbbrev	Abbreviated custom X-axis to override the axis label based on the current data format.	Any text up to 149 characters.
CustomYAxis	Custom Y-axis to override the axis label based on the current data format.	Any text up to 149 characters.
CustomYAxisAbbrev	Abbreviated custom Y-axis to override the axis label based on the current data format.	Any text up to 149 characters.
Data	The actual data points of the spectrum. The portion of the spectrum retrieved is controlled by the selected region. If no region is selected, the display limits are used. Note that reads of spectral data are limited to 2048 data points. On writes, the number of data points does not need to match the number of points in the interval specified by the first X, last X pair. The text string cannot exceed 64 kilobytes.	The format is: <Number of data points> <FirstX> <LastX> <DataPoint 1> <DataPoint 2>

Spectrum group parameters (continued)

Parameter Name	Description	Legal Values
DetectorID	ID of the detector used to collect the data.	One of these integers: 0 = hot MCT/A 1 = cool MCT/A 2 = hot MCT/B 3 = cool MCT/B 5 = InGaAs 6 = PbSe 7 = InSb 8 = Si 9 = PbS 10 = Bolometer 11 = photoacoustic 12 = DTGS KBr 13 = DTGS CsI 14 = DTGS TEC 15 = DTGS polyethylene 16 = hot Ge 17 = cool Ge 18 = LiTaO3 21 = NIR InGaAs 32 = hot MCT-High D* 33 = cool MCT-High D* 34 = InGaAs 2.6 μm 35 = TEC InGaAs 2.6 μm 37 = TEC InGaAs Unknown (Read only.)
Duration	Collection length in hundredths of a second.	Integer. (Read only.)
ExtendedTime	Time in 100s of a second into the collection time. Use only for series spectra.	(Read only.)

Spectrum group parameters (continued)

Parameter Name	Description	Legal Values
Filename	DOS path and filename for the selected spectrum if it has been saved.	Text string. (Read only.)
FirstX	X coordinate of the first data point in the spectrum.	Floating point number. (Read only.)
Gain	Signal gain.	Integer. (Read only.)
HeaderVersion	Version of the software used to produce this spectrum times 100.	(Read only)
HighPassFilter	High pass filter setting.	Integer. (Read only.)
History	Returns the text of the data processing history section of the collection and processing information.	Text string.
LaserFreq	Laser frequency.	Floating point number. (Read only.)
LastX	X coordinate of the last data point in the spectrum.	Floating point number. (Read only.)
LowPassFilter	Low pass filter setting.	Integer. (Read only.)
MaxAperture	Maximum diameter of the aperture.	Floating point number. (Read only.)
Noise	Estimated noise level.	Floating point number. (Read only.)
NumBkgScans	Number of scans coadded to produce a background.	Integer number of scans. (Read only.)
NumDataPts	Number of data points in the spectrum.	Integer number of data points. (Read only.)
NumScans	Number of scans to coadd to produce one spectrum.	Integer number of scans. (Read only.)
NumTransformPts	Number of FFT points.	Integer number of data points. (Read only.)

Spectrum group parameters (continued)

Parameter Name	Description	Legal Values
PeakHeight	Height of the interferogram peak.	Floating point number. (Read only.)
PeakPosition	Data point position to expect the peak to occur at.	Integer number of data points.
PhaseCor	Phase correction algorithm used.	One of these strings: Mertz or PowerSpectrum. (Read only.)
PhyPeakPosition	Physical peak position.	Integer.
RamanLaserFreq	Raman laser frequency used to produce this spectrum. Valid only for Raman data.	(Read only.)
ResolutionPts	Number of data points after ZPD in the original interferogram.	Integer. (Read only.)
SDP	Number of scan data points.	Integer. (Read only.)
Source	Source used for data collection.	One of these strings: IR, Whitelight or Off. (Read only.)
SSP	Sample spacing. (Read only)	One of these floating point values: 1.0 or 2.0. (Read only.)
Title	Spectrum title.	Text string.
Velocity	Moving mirror velocity. (Read only)	One of these floating point values (centimeters per second): 0.1582 0.3165 0.4747 0.6329 0.9494 1.2659 1.8988 2.5317 3.1647 (Read only.)

Spectrum group parameters (continued)

Parameter Name	Description	Legal Values
XAxisID	X-axis ID. You may set this parameter to a different value, but the change will not appear on the display until you save the spectrum and open it again or until you cut and paste the spectrum. See also Display XAxisMode.	One of these strings: Nicolet Analytical Instruments Wavenumbers (cm-1) Data points Wavelength (nm) Wavelength (micrometers) Frequency (Hz) Time (minutes) File number Arbitrary units Instrument energy response %Reflectance Log(1/R) Conc PPT Real/Imaginary Pair Single Beam %Transmittance Absorbance Digitizer output Emittance Kubelka-Munk Reflectance Volts Transmittance Frequency (MHz) Frequency (GHz) Photoacoustic (These strings are translated in international versions of OMNIC.)
XPos	Microscope mapping X position.	Integer.
YAxisID	Y-axis ID.	Same as XAxisID.
YPos	Microscope mapping Y position.	Integer.
ZPos	Microscope mapping Z position.	Integer.

SpecQual group parameters

Parameter Name	Description	Legal Values
Accessory	Index of selection in the Accessory drop-down list box on the Bench tab of the Experiment Setup dialog box.	Integer.
BackgroundCheck	Enables or disables background checks.	True or False.
ExperimentDesc	Text in the Experiment Description text box on the Collect tab of the Experiment Setup dialog box.	String.
ExperimentTitle	Text in the Experiment Title text box on the Collect tab of the Experiment Setup dialog box.	String.
ParamSetTitle	Pathname of the currently loaded experiment file.	String. (Read only.)
SpecQualCheck	State of the Use Spectral Quality Checks option on the Quality tab of the Experiment Setup dialog box.	True or False.
Window	Index of selection in the Window Material drop-down list box on the Bench tab of the Experiment Setup dialog.	True or False.

TQGeneral group parameters

Parameter Name	Description	Legal Values
lpMMCompAbbrev	Tab-separated list of component abbreviations in the order they appear in the components table on the Components tab.	String.
lpMMComponents	Tab-separated list of component names in the order they appear in the components table on the Components tab.	String.
lpMMCompUnits	Tab-separated list of units for each component in the order they appear in the components table on the Components tab.	String.
MethodFilename	Filename of the quant method.	String.
MethodTitle	Title of the quant method as entered on the Description tab.	String.
NumComponents	Number of components.	Integer.
RevisionDate	Time stamp when the quant method was last saved. (Use GU4_Time2String to convert to date and time format.)	Number code.
RevisionNumber	Revision number of the quant method.	Integer.

VRM group parameters

Parameter Name	Description	Legal Values
AlignLED	Indicates if the LED behind the pinhole in the alignment tool is on or off.	Integer value. 0 = Off 1 = On
ApertureID	Current aperture position. (The legal values are hardware settings.)	Integer value. 0 = 100 μm hole 1 = 50 μm hole 2 = 25 μm hole 3 = 10 μm hole 4 = 10 μm slit 5 = 25 μm slit 6 = 50 μm slit 7 = 100 μm slit
BeamPath	Indicates whether the sample is located in the microscope or sample compartment.	Integer value. 0 = Microscope 1 = Sample compartment
BackgroundExposures	Number of exposures for collecting a background.	Integer value = 0.
BinMode	State of the Bin CCD Rows On Chip and Select Rows Automatically options on the Advanced tab of the Experiment Setup dialog box.	Integer value. 0 = bin on chip 1 = bin in memory 2 = automatic row selection
BleachTime	The number of minutes to expose the sample to the laser beam before starting to collect data. This parameter is normally set to 0, but when you perform photobleaching collections, BleachTime should be set to a value greater than 0. (Be sure to reset the BleachTime to 0 after completing a photobleach collection.)	Integer value ≥ 0 .

VRM group parameters (continued)

Parameter Name	Description	Legal Values
CalibBits	<p>A bit mask of scheduled calibrations. Legal values are determined by adding the values (shown below) of the calibrations you have scheduled:</p> <p>1 for bias collect 2 for X-axis linearity 4 for laser wavelength 8 for Y-axis linearity</p>	<p>Odd integer values from 1 to 15.</p> <p>The bias collect calibration must always be entered by the user, so the sum of the calibration values cannot be an even integer. Entering an even integer for this parameter results in an error message.</p>
CalibTime	<p>The time a scheduled calibration will be performed.</p>	<p>Integer values from -1 to 11519 according to the number that corresponds to when you want the calibration to take place (see below).</p> <p>-1 = Begin calibration now</p> <p>0 to 1439 = The number of minutes after midnight to schedule daily calibrations</p> <p>1440 to 11519 = 1440 multiplied by the value for the day of the week you want a calibration to take place. The resulting number is then added to the previous value (0 to 1439).</p> <p>The values for the days of the week:</p> <p>1 = Sunday 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday</p>

VRM group parameters (continued)

Parameter Name	Description	Legal Values
CameraSetTemp	The temperature setting of the camera in degrees Celsius.	Integer values from 0 to -60.
CameraTemp	The current temperature of the camera in degrees Celsius.	Integer value. (Read only)
CenterWL	The position of the grating. The value is the wavelength, in nanometers, at the center of the CCD detector.	Floating point number.
ExposureTime	The amount of time (in seconds) that the camera is exposed to radiation from the sample.	Floating point numbers from 0.1 to 300.0 seconds in 0.1 second increments.
GratingID	The currently selected grating. The legal values for this parameter are the hardware settings for the four installed gratings.	Integer value from 1 to 4.
GratingSpacing	The spacing of the grooves in the currently selected grating. (Units are lines per millimeter.)	Integer value. (Read only)
Illuminators	Indicates if power is supplied to the microscope illuminators.	Integer value. 0 = Off 1 = On
LaserError	The LaserError for the currently selected grating. This value (in wavenumbers) is the offset applied to the X-axis when collecting data with the final format set to shifted spectrum.	Floating point number.
LaserOn	Indicates if power is supplied to the currently selected laser.	Integer value. 0 = Off 1 = On

VRM group parameters (continued)

Parameter Name	Description	Legal Values
LaserPolarization	Indicates whether or not the excitation laser polarizer is rotated 90 degrees.	Integer value. 0 = Parallel 1 = Perpendicular (Selecting Perpendicular moves the polarization flipper into the beam path.)
LaserPower	Indicates the neutral density filter that is currently selected to control the laser power at the sample.	Integer values between 0 and 10 corresponding to optical densities of 0.0 to 1.0. The approximate percentage of maximum laser power being sent to the sample is shown below. 0 = 100% = 0.0 OD 1 = 79% = 0.1 OD 2 = 63% = 0.2 OD 3 = 50% = 0.3 OD 4 = 40% = 0.4 OD 5 = 32% = 0.5 OD 6 = 25% = 0.6 OD 7 = 20% = 0.7 OD 8 = 16% = 0.8 OD 9 = 13% = 0.9 OD 10 = 10% = 1.0 OD
LaserSaver	The number of minutes of inactivity after which, the laser is turned off.	Integer values from 0 to 65535. (A value of 0 turns off the laser saver feature.)
LaserSelection	Indicates which laser is currently turned on.	Integer value. 1 = Laser1 2 = Laser2 Setting the value to 1 or 2 applies power to the selected laser and, if necessary, moves the laser selection mirror and the notch filter assembly.

VRM group parameters (continued)

Parameter Name	Description	Legal Values
LaserShutdown	Indicates whether or not the laser should be turned off when OMNIC is closed.	Integer value. 0 = No 1 = Yes
LaserWavelength	The wavelength of the currently selected laser in nanometers. This is the nominal laser wavelength. To obtain the corrected laser frequency, derived from the laser calibration procedure, read the RamanLaserFreq parameter in the Spectrum group parameters.	Floating point number. (Read only)
LaserWorking	Indicates if the selected laser is working.	Integer value. 0 = No 1 = Yes (Read only)
MultipleExposure	Allows multiple grating positions to be used when collecting extended spectral ranges.	Integer value. 0 = False 1 = True
NeonBulb	Places the internal neon lamp assembly into the sample compartment beam path and turns on the neon light. (Use this to collect neon spectra for diagnostic purposes.)	Integer value. 0 = Off/out of beam 1 = On/in beam
ParOffset	The offset of the first row that is read from the CCD chip. (This must be consistent with the ParSize.)	Integer values from 0 to 255.
ParSize	The number of rows to read from the CCD chip. (This must be consistent with the ParOffset.)	Integer values from 0 to 256.

VRM group parameters (continued)

Parameter Name	Description	Legal Values
PolarizerDegrees	Indicates the amount the polarization analyzer is rotated.	<p>Floating point number from 0.0 to 179.0 degrees in 0.1 degree increments.</p> <p>This value is in degrees from the parallel (0 degrees) polarization position. 90 degrees is the perpendicular polarization position.</p> <p>The actual angle may be slightly different than what you specify because of the step size of the rotator. Read the value after you set it to find out the actual angle.</p>
SurveyTime	The preview data collect exposure time and the exposure time for updating the live display on the Bench tab.	Floating point numbers from 0.1 to 10.0 in 0.1 second increments.
UseDichroic	<p>Indicates that the dichroic filter (if installed) should be used in place of the mirror for data collection.</p> <p>The dichroic filter is used only with the 785 nm laser. When other lasers are selected, the mirror is used for data collection, and this parameter setting is ignored.</p>	<p>Integer value.</p> <p>0 = No</p> <p>1 = Yes</p>
UsePolarizer	Indicates whether or not the polarization analyzer is in the beam path.	<p>Integer value.</p> <p>0 = No</p> <p>1 = Yes</p>
Whitelight	Indicates whether or not the white light on the alignment tool is activated.	<p>Integer value.</p> <p>0 = Off</p> <p>1 = On</p>

Window group parameters

Parameter Name	Description	Legal Values
ID	A Windows handle of the window.	Integer value that identifies this window. (Read only.)
ReadOut	The current contents of the readout.	Text string. The format is defined by the currently selected palette tool. (Read only.)
Title	Title of the window.	Text string.
Type	Window type, such as spectral window, log window or dialog box.	Integer values: 1 - spectral display window 2 - dialog box 4 - invisible DDE window 8 - series reconstruction window 16 - task window (for example, Subtract or Find Peaks) 32 - log window (Read only.)

Bench and Collect parameters for step-scan experiments

The Spectral Resolution, Points Before Peak, and Sample Spacing parameters which appear in the Amplitude Modulation and Phase Modulation setup screens correspond to the following OMNIC Bench and Collect group parameters.

Setup Parameter	DDE Parameter	Notes
Sample Spacing	Bench SSP	1.0, 2.0, or 4.0 allowed
Spectral Resolution	Collect Resolution	0.125 to 32.0 wavenumbers allowed
Points Before Peak	Collect PeakPosition	must be = $32768 / (\text{Resolution} * \text{SSP})$

Other Bench group parameters which apply to step-scan experiments in the usual way are: ADC, Aperture, BeamPath, BeamSplitter, Gain, HighCutoff (limited by SSP), LowCutoff, and Source.

Other Collect group parameters usable in step-scan experiments are: ApodizationFunction, AutoSave, BackgroundFileName, BackgroundHandling (AfterTime and ThisBkg options only), BaseName, BasePathName, DataCorrections, FinalFormat, MaxBackgroundAge, NumPhaseDataPts (limited by PeakPosition), NumPhaseTransformPts, PhaseCor, SequenceNum, and ZeroFill.

The following Bench group parameters are not used during step-scan collections: BidirectionalScan, RapidScanState, and Velocity.

The following Collect group parameters are not used during step-scan collections: Autogain (always False), Correlation, CorrError, ExternalTrigger (always False), NumDataPts (calculated from Resolution and SSP), NumScans (always 1), NumTransformPts (calculated from NumDataPts and ZeroFill), and SaveInterferograms (always True).



Atlus DDE Commands

This chapter contains information about using the Atlus DDE commands and complete descriptions of the Atlus DDE commands.

Using Atlus DDE commands

You can use the Atlus DDE commands in the Visual Basic projects you create to automate Atlus software operations. To use the Atlus DDE commands, you must use the `ExecuteApp` and `GetApp` `OmTalk` routines.

The `ExecuteApp` routine requires two arguments:

- The first argument is “atlus | microdde”
- The second argument is the parameter. (The parameters you can use are shown in the descriptions of the Atlus DDE commands.)

Example:

```
ExecuteApp “atlus | microdde”, “Get XY”
```

To obtain a return value from an `ExecuteApp` routine you must use the `GetApp` routine.

Example:

```
ExecuteApp “atlus | microdde”, “Get XY”  
Text1.Text = GetApp(“atlus | microdde”, “result”)
```

The `GetApp` routine also requires two arguments:

- The first argument is “atlus | microdde”
- The second argument is “result”

Example: `GetApp “atlus | microdde”, “result”`

Note To insert the “μ” character, use the `Alt+0181` shortcut.

List of Atlas DDE commands

A list of the Atlas DDE commands is shown below. Following this list are descriptions of the commands in alphabetical order.

AlwaysOnTop
Aperture
ATRStatus
AutoATR
AutoFocus
CollectMap
CopyVideoImage
OpenCal
OpenSeq
XY
Z

AlwaysOnTop This command switches the Always On Top feature on or off.

Syntax: AlwaysOnTop

Parameters: None

Example: ExecuteApp “atlus | microdde”, “AutoFocus”

Aperture This command gets or sets the microscope aperture.

Syntax: Aperture [<xxx> <yyy> <ttt>]

Parameters: <xxx> is the requested width of the aperture (in microns)
<yyy> is the requested height of the aperture (in microns)
<ttt> is the requested aperture angle

Examples: ExecuteApp “atlus | microdde”, “Get Aperture”
Text1.Text = GetApp(“Atlus | microdde”, “result”)
ExecuteApp “Atlus | microdde”, “Set Aperture 123 456 45”

Explanation: The first example requires two commands to return the result. (No parameters are passed). The result is three numbers separated by single spaces.

The second example is for setting the aperture. There is a single space between each argument.

When this command returns a value of 1, it indicates success. A value of 0 indicates failure.

ATRStatus This command gets the current status of the ATR contact.

Syntax: ATRStatus

Parameters: None

Example: ExecuteApp “atlus | microdde”, “ATRStatus”
Text1.Text = GetApp(“atlus | microdde”, “result”)

Explanation: This command will return a 0 if the ATR is not in contact or a 1 if the ATR is in contact.

AutoATR This command moves the ATR into contact.

Syntax: ATRStatus

Parameters: None

Example: ExecuteApp “atlus|microdde”, “AutoATR”
Text1.Text = GetApp(“atlus | microdde”, “result”)

Explanation: This command will return a 1 if AutoATR is successful or a 0 if AutoATR is not successful.

AutoFocus This command performs Auto Focus.

Syntax: AutoFocus

Parameters: None

Example: ExecuteApp “atlus | microdde”, “AutoFocus”
Text1.Text = GetApp(“atlus|microdde”, “result”)

Explanation: This command will return a 1 if AutoFocus is successful or a 0 if AutoFocus is not successful.

CollectMap This command initiates a map collect.

Syntax: CollectMap

Remarks: A map must have been defined.

Example: ExecuteApp "atlus | microdde", “CollectMap”

Explanation: Same as Atlus menu item “Collect Map”

Comments: This command will return a 1 if successful or a 0 if unsuccessful.

CopyVideoImage This command copies the current video image to clipboard.

Syntax: CopyVideoImage

Parameters: None

Example: ExecuteApp "atlus | microdde", "CopyVideoImage"
Text1.Text = GetApp("atlus | microdde", "result")

Explanation: This command will return a 1 if CopyVideoImage is successful or a 0 if CopyVideoImage is not successful.

OpenCal This command opens an Atlus Calibration file.

Syntax: OpenCal <Filename>

Arguments: The <Filename> is a previously defined Calibration file.

Remarks: The <Filename> argument is not optional.

Example: ExecuteApp "atlus | microdde",
↳ "OpenCal C:\Program Files\Omnic\calfile.cal"

Comments: The full path must be accurate or Atlus will report an error message that says it cannot open the file.

OpenSeq This command opens an Atlus sequence file.

Syntax: OpenSeq <Filename>

Arguments: The <Filename> is a previously defined Sequence file.

Remarks: The <Filename> argument is not optional.

Example: ExecuteApp "atlus | microdde", "OpenSeq C:\Program Files\Omnic\seqfile.seq"

Comments: The full path must be accurate or Atlus will report an error message that says it cannot open the file.

XY This command gets or sets the current XY axis stage position. Units are in microns, and the stage must be properly calibrated.

Syntax: XY [<xxxx> <yyyy>]

Parameters: <xxxx> is the requested X axis position of the stage (in microns)
<yyyy> is the requested Y axis position of the stage (in microns)

Examples: ExecuteApp “atlμs | microdde”, “Get XY”
Text1.Text = GetApp(“atlμs | microdde”, “result”)
or
ExecuteApp “atlμs|microdde”, “Set XY 123 456”

Explanation: The first example requires two commands to return the result. (No parameters are passed). The result will be two numbers separated by a space. The second example is for setting the XY stage. There is a single space between each argument.

When this command returns a value of 1, it indicates success. A value of 0 indicates failure.

Z This command gets or sets the current Z-axis stage position in units of microns.

Syntax: Z [<zzzz>]

Parameters: <zzzz> is the requested Z-axis position (in microns)

Examples: ExecuteApp “atlμs | microdde”, “Get Z”
Text1.Text = GetApp(“atlμs | microdde”, “result”)
or
ExecuteApp “atlμs | microdde”, “Set Z 123”

Explanation: The first example requires two commands to return the result. (No parameters are passed). The result is a single number. The second example is for setting the Z-axis. There is a single space between each argument.

When this command returns a value of 1, it indicates success. A value of 0 indicates failure.

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