ADDENDUM TO

NWA QUALITY ANALYST

User's Manual

This addendum contains changes to the *NWA Quality Analyst User's Manual.* The page numbers in this addendum refer to the most recent edition of the *User's Manual.* If you have an earlier edition, use the page numbers in the square brackets. You have an *earlier* edition if the last page is page 560.

Page 9

➡ Add the following text at the end of the section titled *Managing Data Sets*. It describes new file-management commands available on the File menu.

To make managing Data Sets easier, Quality Analyst includes several filemanagement commands, all of which appear on the Utilities submenu of the File menu.

To copy a Quality Analyst Data Set:

1 Open the File menu, select Utilities, then select Copy. The Copy Files dialog box will appear.

Copy Files			×
Source File Name: •.DAT	Source File Title: Main Production Line - Assembly D	efects	Copy <u>C</u> lose
ASSEMBLE.DAT BOARDS.DAT DEFECTS.DAT ELEMENTS.DAT FAN.DAT FILLBAG.DAT FILLHEAD.DAT INJMOLD.DAT	<u>Urrectones:</u> f:\progra~1\qa ➢ f:\ ➢ progra~1 — qa — data	Drives: f: [DISK2_VOL3] File Types: *.DAT	<u>H</u> elp
Destination:	f:\progra~1\qa f:\ progra~1	Drives:	

- 2 Specify the Data Set you want to copy in the upper half of the dialog box.
- **3** Select a destination folder in the lower half of the dialog box.
- 4 Click Copy.

To delete a Data Set:

1 Open the File menu, select Utilities, then select Delete.

Delete Files			×
File <u>N</u> ame: *.DAT	File Title: Main Production Line - Assembly D	Pefects	
ASSEMBLE.DAT BOARDS.DAT DEFECTS.DAT ELEMENTS.DAT FAN.DAT FILLBAG.DAT FILLBAD.DAT INJMOLD.DAT	Directories: f:\progra~1\qa ic: f:\ ic: progra~1 ic: ga ic: ga ic: data	Drives: Fi [DISK2_VOL3] File Types: *.DAT	<u><u>H</u>elp</u>

- 2 In the Delete Files dialog box, specify the Data Set you want to delete.
- 3 Click Delete.

To rename a Data Set:

1 Open the File menu, select Utilities, then select Rename. The Rename Files dialog box will appear.

Rename Files			×
File <u>N</u> ame: 1.DAT ASSEMBLE.DAT	File Title: Main Production Line - Assembly [Directories:	Defects	Rename <u>C</u> lose
BOARDS.DAT DEFECTS.DAT ELEMENTS.DAT FAN.DAT FILLBAG.DAT FILLHEAD.DAT INJMOLD.DAT	r: \progra 1 \qa ☐ f:\ ☐ progra*1 ☐ data	File Types: 	<u>H</u> elp
Ne w File Name:]		

- 2 Specify the Data Set you want to rename in the upper half of the dialog box.
- 3 Select a new name for the Data Set in the New File Name box. You need not supply a file name extension; Quality Analyst will apply the appropriate extensions for each component of a Data Set.
- 4 Click Rename.

Page 28

➡ The Variable Definition and Specifications dialog box has two new buttons labeled Print and Printer. This dialog box is also depicted on pages 33, 43, and 58.

Variable Definition and Specifications									
	Name	Туре	Description	Lower	Upper	Target 📤	nr		
1		•							
2		Ψ.					<u>C</u> ancel		
3		-							
4		•					Insert		
5		-					<u>D</u> elete		
6		-					Cut		
		-					Cult		
9							<u>P</u> aste		
10		-				•			
							Print		
[H <u>e</u> lp		Va <u>r</u> iable Parameters				Printer		
Na	me : Each variab	ile must	have a unique name. The rules f	or variable na	ames a	.re:	Help		
Name: Each variable must have a unique name. The rules for variable names are: • The name must be from 2 to 8 characters. • Names must begin with an alpha character (AZ). • Characters are limited to AZ, 09, and underscore (_). • Names may not contain punctuation. • Maximum of 200 variables per data set.									

Page 46

C Replace the section titled **Saving the Data Definition** with the following section.

Printing and Saving the Variable Definition

After you have specified all variables, click Print if you want to print the variable definitions and specifications. (Click Printer, if necessary, to make sure your printer is configured properly.)

To save the data definition, click OK. The Editor will display a data grid much like a spreadsheet. The labels in the column headings will reflect the data structure you just defined.

Page 47

The Column Definition and Calculations dialog box has two new buttons labeled Print and Printer. This dialog box is also depicted on pages 49, 55, 59, 429 [418].

Page 55

C Replace the text in the section titled **Saving the Data Definition** with the following heading and text.

Printing and Saving the Column Definition

After you have specified all column definitions and calculations, click Print if you want to print them. (Click Printer, if necessary, to make sure your printer is configured properly.)

To apply the column definitions and calculations, click the OK button. The Editor will display a data grid much like a spreadsheet. The labels in the column headings will reflect the data structure you just defined.

Page 61

Insert the following procedure before the section Modifying Data.

To move to a specific data cell:

- 1 Open the Edit menu and select Go To.
- 2 In the Go To A Data Cell dialog box, enter the row number and column number of the cell you want to select.



3 Click OK.

Page 66

Insert the following section before the section Overriding an Input Mask.

Finding and Replacing Data

To find a cell based on its contents:

1 Open the Edit menu and select Find. The Find dialog box will appear.

Find		×
<u>F</u> ind:	9/12/97	Find <u>N</u> ext
		<u>C</u> lose
<u>S</u> earch:	By Rows	
	Search Direction Matching ○ Up □ Case Sensitive ● Down ▼ Entire Cell	<u>H</u> elp

- 2 In the Find box, enter the text you want to search for.
- 3 In the Search box, select By Rows to search each cell in a row before moving to the next row. Select Current Column to search the column containing the selected cell.
- 4 In the Search Direction area, specify whether to search Up from the current cell toward the top of the file or Down from the current cell toward the bottom of the file.
- 5 In the Matching area, select Case Sensitive to find only those cells where the text *and the case* of the text matches your Find text. Select Entire Cell if you want to find only entire cells, not partial cells, that match your find text. For example, if you select this option and your find text is "BIN1," Quality Analyst will find

only cells whose entire content is "BIN1" but *not* cells whose entire content is "BIN14" or "PARTBIN1."

6 Click Find Next to select the next cell that meets the criteria specified in the dialog box.

To find and replace text in a Data Set:

1 Open the Edit menu and select Find & Replace. The Find and Replace dialog box will appear.

Find and Replac	e	×
<u>F</u> ind:	824-07	Find <u>N</u> ext
<u>R</u> eplace With:	824-07-A	<u>C</u> lose
<u>S</u> earch:	Current Column	Re <u>p</u> lace
	Search Direction Matching	Replace <u>A</u> ll
	Down Entire Cell	<u>H</u> elp

- 2 Specify the Find text and search parameters as explained in the previous procedure.
- 3 In the Replace With box, enter the text that should replace the found text in the Data Set.
- 4 Click Find Next to find the Find text in the Data Set.
- 5 If the Find text is found, do one of the following:
 - Click Find Next to retain this occurrence of the found text and find the next occurrence.
 - Click **Replace** to replace this occurrence of the found text with the **Replace** With text. Repeat until you have made all desired changes in the Data Set.
 - Click Replace All to replace all remaining occurrences of the Find text with the Replace With text.
- 6 Click Close to stop finding and replacing.

Page 93

C Replace the figure at the top of the page with this one:

Print Data		×
Rows to Print © File Default: All Rows All Rows Last 30 From Row: 1 Lo Row: (Last) Number of Rows per Page: 45	X Show <u>Row</u> Number X <u>S</u> how Column Names X <u>G</u> ray Row & Columns X Show <u>B</u> order	<u>O</u> K <u>C</u> ancel Printer <u>H</u> elp
Columns to Print All Columns O From Column: 1 To Column: [Last]	X Show Grid Data Set Information Print Variable Definition Print Column Definition Print File Parameters	ons Ins
Print Title T <u>i</u> tle: Alignment: © Left <u>J</u> ustify O C <u>e</u> nter O Righ	nt Justif <u>y</u>	

➡ Add the following text to the end of the first paragraph.

In the box labeled Number of Rows per Page, enter the maximum number of data rows to print on a page. Quality Analyst will start a new page after this many rows, even if more would fit. If you request *more* rows than would normally fit on the page, this setting is ignored.

Insert the following paragraph between the third and fourth paragraphs.

In the Data Set Information area of the dialog box, specify whether you want to Print Variable Definitions, Print Column Definitions, or Print File Parameters on the report.

Pages 195 and 197 [194 and 196]

➡ Replace the figure on these pages with this one:

Quality Analyst Sett	ings			×					
Capability Parameter	s File Paths	Missing & Tagged Dat	Box Plot & Capability Report						
General	Limits & Specifications	Chart Parameters	Pattern Rules	Histogram Statistics					
Title for Graphics and Reports OK Ask for Additonal Graphics and Report Comment Garcel Date Format Save Date: 10/10/1997 Delimiter: Image: Century Style Century 19 45 - 1999 Curopean 10/10/1997 Delimiter: Image: Stale Military 10/0ct/1997 2000 - 20 44									
RUN File Error Handling Color Reguire acknowledgement of RUN File Errors Color Halt on any RUN File Error Character Number Continue from nested RUN File Errors In Control: 2 Text Comparisons Text comparisons are case sensitive Rule Violation: 5									

Page 199 [198]

Setween the last two paragraphs in the Date Format section, add this text:

In the Century area, specify the 100-year period in which your Quality Analyst data was or will be collected. Quality Analyst will use this setting to interpret dates in Data Sets that contain two-digit years. For example, if you enter **45**, Quality Analyst will interpret the date **9/23/23** as **9/23/2023**, *not* **9/23/1923**. (Quality Analyst interprets four-digit years in dates explicitly.)

Page 223 [222]

Replace the File Paths section with the following text and figure.

File Paths

On the File Paths tab of the Quality Analyst Settings dialog box, specify where, on your computer system, Quality Analyst should store temporary and graphics files.

Quality Analyst Settir	ngs			×		
General	Limits & Specification	s Chart Parameters	Pattern Rules	Histogram Statistics		
Capability Parameters	External Database					
Iemporary File Pa Image: Constraint of the system Te of the	th mporary File Path: and Text (*.PTX) File mporary File Path:	e Path		<u>OK</u> <u>Cancel</u> <u>Save</u> <u>Print</u> <u>Reset</u> <u>Help</u>		

File Paths tab of the Quality Analyst Settings dialog box

In the area labeled **Temporary file path**, specify the path where you want to store temporary files that are used "behind the scenes" by Quality Analyst. You may be able to improve the performance of Quality Analyst by specifying a RAM disk or a location on your network server or workstation that has a quicker response than the disk where you keep your data files. (If you choose a location on your network, make sure no other Quality Analyst users are using it for the same purpose, or conflicts may arise.)

In the area labeled Graphics (*.PLT) and Text (*.PTX) file path, specify the path where you want Quality Analyst to store graphics (PLT) files and text (PTX) files as it creates and displays them. Quality Analyst will store temporary files in this location unless you rename and save them to a different location as described under *Saving Charts on Disk* on page 147 [146].

To specify a path:

- Select the upper box and leave it empty to store files in the same folder as your data (DAT) files.
- Select the upper box and enter a path to an existing folder to store files there.
- Select Use System Temporary File Path to use the folder specified by the TEMP= statement in your AUTOEXEC.BAT file. The name of that folder is shown in the adjacent gray box.

Page 353 [349]

➡ Add the following section between the table and the CHART section.

CALC

The CALC command calculates calculated variables, if any, in a Data Set. The syntax for the CALC command is:

CALC filename.dat

If your Data Set contains calculated variables *and* contains data that was added to the Data Set outside the Quality Analyst Editor (for example, by other data-collection software), you should include a CALC command in your Run File *above* any charting or analysis commands.

Example: To create an Individual and Range chart for a variable in a Data Set that contains a calculated variable, the Run File command lines would be:

CALC VENEER.DAT IR VENEER.DAT THICK I R G

Page 359 [354]

➡ Add the following section after the \$COMMENT section.

CONNECT

The CONNECT command is used by the Database Connectivity version of Quality Analyst to establish a connection to an external database. See *Using Database Connectivity in Run Files* on page 476 [465] for details.

The syntax for the CONNECT command is:

CONNECT filename.dat

Page 391 [383]

C Replace the syntax for a REPORT Run File command line with the following:

REPORT [input file] [format file] [output] [output file]
 (\$PAGEWIDTH=n)

Command Parameter	Description
[input file]	the name of the input file
[format file]	the name of the report format definition file (see below)
[output]	"W" to create a formatted text (PTX) file
[output file]	the name of the output file
(\$PAGEWIDTH=n)	the number of characters per line of output

➡ Insert the following paragraph in the REPORT section before the example.

You can control the width of a printed report by including a **\$PAGEWIDTH=n** parameter on the **REPORT** command line. Substitute the number of characters per line of output (up to 240) for **n** (the default is 120).

Page 456 [445]

➡ The External Database Setup dialog box, shown first on page 456 [445] and again on several subsequent pages in the chapter, has a new Options button between the Paste and Help buttons.

External Datab	ase Setup	×
Data Selectio	n	<u>0</u> K
Conn <u>e</u> ction:	Microsoft Access	Cancel
Data <u>S</u> ource:	C:\ACCESS2\LOUIS.MDB	 C <u>l</u> ear
● T <u>a</u> ble:	BREAKAGE	Cut
⊖ s <u>q</u> l:		Сору
		Paste
Tables		Optio <u>n</u> s
Available Fiel	ds	<u>H</u> elp
	[breakage] [breakage] [breakage] [date] [breakage] [pct_btk] [breakage] [pct_btk] [breakage] [pct_wst] [breakage] [shift] [breakage] [shift] [breakage] [total] [breakage] [waste]	

Page 461 [450]

Insert the following section just before the section Assigning Database Fields to Quality Analyst Variables.

Setting External Database Access Options

In the External Database Setup dialog box, clicking **Options** displays the External Database Access Options dialog box which lets you override, at the file level, several global connectivity options. This make it easier for your to connect to multiple database types.



Select **System Default** to use the global settings. (Configuring these global settings is explained under *Configuring Connectivity* on page 23 of this Addendum.

Select **Custom** to override the global parameters with the parameters you specify in this dialog box. The parameters will be saved for the current Data Set in its header (HED) file.

For explanations of these settings, see *Data Retrieval* on page 25 of this addendum and *Database Options* on page 24 of this addendum.

Page 462 [451]

➡ The Database Connectivity Definition dialog box, shown first on page 462 [451] and again on several subsequent pages in the chapter, has changed.

Data	oase Con	nectivil	ty Def	inition							×
	Nam	e	Туре			Exte	rnal Datab	ase Field		 -	<u>0</u> K
1				-						 -	<u>C</u> ancel
2											
4			•								Insert
5			•	•							<u>D</u> elete
6				-							Cu <u>t</u>
8											Paste
9				•							Bemove
10										 •	The metric
[[External C	ataba	se Fie	lds		External D	atabase Fi	lters]		
Co	nnection:	ODBC									External
Data	a Source:	MS Acc	cess 97	7 Databa	ase						Assian
	Table:	BREAK	AGE								
	Fields:	[break	age]							-	Assign All
		[[date] [[oct_br	rk1								<u>H</u> elp
		[pct_p	cs]								
		[pieces	st] 5]								
		[shift]								Ţ	
		Itotal									

The table in the upper part of the dialog box now has three columns—the Quality Analyst variable name, the data type, and the field name from the external database. Earlier releases of Quality Analyst included a fourth column labeled Description. You can still enter or modify the variable description in the Variable Definition and Specifications dialog box which you display by opening the Edit menu and selecting Variable Definition and Specifications.

Page 467-472 [456-461]

C Replace the section titled **Defining Connectivity Data Filters** with the following.

Defining Connectivity Data Filters

On the External Database Filter tab in the Database Connectivity Definition dialog box you can define filters to limit the amount of data retrieved from the data source.

Database Connectivity Definition					
	Name	Туре	External Database Field	<u>0</u> K	
1	DATE	D 🔻	[date]	Cancel	
2	SHIFT	A 💌	[shift]		
3	BREANAGE	1 1	[breakage]	<u>I</u> nsert	
4	PCT_ALL PCT_BBK		[pet_brk]	Delete	
1	PCT_PCS	· ·	[pcc_bit]		
7	PCT_WST	•	[pct_wst]	Liu <u>t</u>	
8	PIECES	-	[pieces]	<u>P</u> aste	
9	WASTE	I 💌	[waste]	Bemove	
10	TOTAL	- -	[total]	The models	
F	External Databa	© M O Li O Fi	External Database Filters Coder by Coder by Inone INone INone INone INone INo INone INone INone INone INone INo INo INone INone INone INo	<u>R</u> eset	
	New Remove		or Sort Order uring the last month(s) uring the last day(s)		

External Database Filters tab of the Database Connectivity Definitions dialog box

(By default, Quality Analyst will retrieve the entire table from the data source when you open the Data Set.) The filter criteria you specify here become part of the data definition stored in the header file of the Data Set. When you open an external Data Set that includes filter criteria, Quality Analyst translates the criteria into SQL commands and sends them to the external source so the data are filtered by the external source before being sent back to Quality Analyst.

Note: The External Database Filter tab is only accessible if your Data Set is based on a single table you selected from the drop-down list in the External Database Setup dialog box. If you chose instead to base your Data Set on an SQL query, the External Database Filters tab will not be available and the SQL commands you enter must perform all necessary filtering.

When using connectivity filters, please note:

- You can define any number of filter criteria. Only data records meeting *all* criteria will be returned to Quality Analyst. (That is, "AND" logic is used.)
- Any External Database field assigned to the Quality Analyst Data Set may be used in a filter.
- You can specify filters that return records with fields that match specific values or that fall within a range of values. (See explanations below.)
- Filters based on a date field can be set to return records from a specified number of months or days ending today.
- If you change the definition of the Connectivity Data Set, the External Database filter(s) will be cleared. Quality Analyst will warn you that, unless you redefine the filter before you click OK, the entire (unfiltered) table will be retrieved.
- The Reset button clears (erases) all current filter criteria and reestablishes the lists of available fields (Columns). (You may need to click Reset to initialize the filters when you first create the Data Set.)

Defining Filters to Retrieve Matching Data

To define a connectivity filter to retrieve matching data:

1 Click New and select the database field on which you want to base the filter.

Select Filter Column	×
DATE	<u>0</u> K
BREAKAGE PCT_BRK	<u>C</u> ancel
PCT_PCS PCT_WST	<u>H</u> elp
WASTE	

The field name will appear in the list of Filters on the left and in the Column box.

- 2 Select Match.
- 3 Enter the value to match in the adjacent box.

Here is an example of a match filter that will retrieve only data produced on June 1, 1997.

Filters	
DATE	Match: 6/1/1997
	O Like:
	O From:
	To: = •
New	O During the last month(s)
Remove	O During the last day(s)

Example of a matching-data filter

Defining Filters to Retrieve Similar Data

To define a connectivity filter to retrieve similar data:

- 1 Click New and select the database field on which you want to base the filter. The field name will appear in the list of Filters on the left and in the Column box.
- 2 Select Like.

In the adjacent box, enter the string you want to search for, using question marks and asterisks as "wild cards." Use a question mark ("?") to represent any single character and an asterisk ("*") to represent one or more characters.

Here is an example of a filter that will retrieve only data records in which the BATCH field begins with **1178**-, ends with **-A**, and contains any three characters in between.

Filters	
BATCH	O Match:
	• Like: 1178-??-A
	C From:
	To: =
New	O During the last month(s)
Remove	O During the last day(s)

Example of a similar-data filter

Defining Filters to Retrieve Ranges of Data

To define a connectivity range filter:

- 1 Click New and select the database field on which you want to base the filter. The field name will appear in the list of Filters on the left and in the Column box.
- 2 Select From.
- **3** Select a lower-limit condition from the adjacent drop-down list:
 - Select "=" to include records where the field value is exactly equal to the lower limit.
 - Select ">" to exclude records where the field value is exactly equal to the lower limit. Values "just greater than" the lower limit will be included.
- 4 Enter the lower limit of the desired range in the adjacent box.
- 5 Next to To:, select an upper-limit condition from drop-down list:
 - Select "=" to include records where the field value is exactly equal to the upper limit.
 - Select "<" to exclude records where the field value is exactly equal to the upper limit. Values "just less than" the upper limit will be included.

Here is an example of a range filter that will retrieve only data collected during June 1997.

Filters	
DATE	O Match:
	O Like:
	• From: = • 6/1/1997
	To: = • 6/30/1997
New	O During the last month(s)
Remove	O During the last 7 day(s)

Example of a data-range filter

You can define an "open-ended" range filter by leaving either the To or the From entry blank. Here is an example of a range filter that will retrieve only data collected before June 30, 1997 ("To <").

Filters	
DATE	O Match:
	O Like:
	• From: = •
	To: < 🔽 6/30/1997
New	O During the last month(s)
Remove	O During the last day(s)

Example of an "up to" data-range filter

Here is an example of a range filter that will retrieve only data collected on or after June 30, 1997 ("From =").

Filters	
DATE	O Match:
	O Like:
	• From: = • 6/30/1997
	To: = •
New	O During the last month(s)
Remove	O During the last day(s)

Example of an "above" data-range filter

To define a "preceding period" connectivity filter:

- 1 Click New and select the database field on which you want to base the filter. The field name will appear in the list of Filters on the left and in the Column box.
- Select During the last month(s) or During the last day(s).

Enter a number of months or days (*including* today) in the corresponding box.

Here is an example of a "preceding period" filter that, if executed on June 30, 1996, would retrieve only data collected from June 24 through June 30, 1997.

Filters	
DATE	O Match:
	O Like:
	○ From: = ▼
	To: =
New	O During the last month(s)
Remove	During the last 7 day(s)

Example of a "preceding period" filter

Removing Filters

To remove a connectivity filter:

- 1 Select the filter in the list of Filters at the far left of the dialog box.
- 2 Click Remove below the list.

Sorting Filtered Data

In the Order By area of the External Database Filters tab, you can specify the how you want the retrieved table to be sorted when it is brought in to Quality Analyst. You sort the data on up to three keys in either ascending or descending order.

To sort filtered data:

- 1 Select from one to three sort keys from the drop-down lists.
- 2 In the Sort Order area, select Ascending or Descending order. The specified order will be applied to all three keys.



Page 477 [466]

Insert the following section just above the Examples section.

The CALC Command

If the data definition for your connectivity Data Set includes calculated variables, you should include a CALC command *after* the CONNECT command to ensure that the calculated variables are updated to reflect any new or changed data in the external database.

➔ Insert the following new example between the two existing examples in the Examples section.

In the following Run File, the data for the Data Set named PLATES, which contains calculated variables, is downloaded and calculated before it is used to create an IR chart:

```
CONNECT PLATES.DAT
CALC PLATES.DAT
IR PLATES.DAT THICK I R G
CHART
```

Page 478-484 [467-473]

C Replace the **Configuring and Troubleshooting** section through the **[ODBC]** section with the following:

Configuring and Troubleshooting

Quality Analyst with Connectivity was designed to connect to a wide variety of data sources under many circumstances. Setting up the initial connection can be a complex task that may require some trial and error. Quality Analyst with Connectivity is highly configurable and lets you meet the requirements of many different data sources and connection techniques.

Quality Analyst with Connectivity uses the same database "engine" (named "Jet" by Microsoft) as Microsoft Access. This provides a number of distinct advantages in flexibility and performance, but also affects configuration (see *Microsoft Access / Jet Database Engine* on page 486 [475]).

You can configure most of the parameters that control and help debug external database connections on the Connectivity tab of the Quality Analyst Settings dialog box. These are explained below under *Configuring Connectivity*.

Other parameters that control Connectivity configuration are stored in the QAEDIT.INI file, which you may edit directly to make necessary changes (see *The QAEDIT.INI File* on page 28 of this addendum).

Configuring Connectivity



To configure Connectivity, click Settings on the main Quality Analyst start-up screen. In the Quality Analyst Settings dialog box, select the External Database tab. This tab contains areas labeled Database Options, Data Retrieval, Database Debugging, ODBC Settings, and MS Jet Database Engine.

Quality Analyst Settings					
General	Limits & Specification:	s Ch	art Parameters	Pattern Rules	Histogram Statistics
Capability Parameters File Paths Missing			& Tagged Data	Box Plot & Capability Report	External Database
Database Options Open Database Pass SQL to Attach Tables t Save Password Data Retrieval Obta Retrieval Data Retrieval Data Retrieval Data Retrieval Data Retrieval Data Retrieval Data Retrieval ODBC Settings Login Timeout (see Query Timeout (see Connection Timeou	Database for proce to Temporary Database Names for Jet Eng with Data Set Database Debug Database Debug Debug Windo Debug Loggin conds): 20 conds): 60 ut (seconds): 1	sssing ase ine ging – w yg	WARNING Changes m on this dia saved to ti initializatio Use Acce User Pass As NOTE: th	Ilentiation of the settings log are automaticall ne Quality Analyst n file 'QAEDIT.INI'. tabase Engine cess Security File ys Ask for Access S ss Logon Name: Admin word: k for Access Logon Quality Analyst must be ese parameters to take	DK <u>C</u> ancel <u>Print</u> <u>Print</u> <u>Help</u> ecurity File

Database Options

When connecting to an external database, Quality Analyst can either open the database, or attach the external database tables to a temporary database created by Quality Analyst. It may seem roundabout for Quality Analyst to create a temporary database and attach tables, but there can be advantages depending on the particular database and type of connection used.

Opening Databases

To open the external database select Open Database. If you choose this option, select Pass SQL to Database for Processing if you want to pass Structured Query Language (SQL) queries to the external database for evaluation. Clear this check box if you want the Jet Database Engine to evaluate SQL queries.

Despite (or perhaps because of) many SQL "standards," each database has its own unique SQL syntax. Jet Database Engine SQL matches Microsoft Access SQL. If the Jet Database Engine interprets the query, Microsoft Access can be used to create the SQL statement. Also, if the Microsoft Jet 2.0 / Visual Basic 3.0 Compatibility Layer is installed, the query can be optimized using the Rushmore data-access technology. If the query is passed on to the external database for evaluation, functions unique to its SQL can be used. You can also use the passthrough setting when the table or field names of the external database don't match the Jet Database Engine naming restrictions.

Attaching Databases

To attach external tables to a temporary database, select Attach Tables to Temporary Databases.

Table and field names in remote databases don't always match the Microsoft Jet Database Engine syntax. In some databases, the table name has a prefix consisting of an "owner" name and a period. Whereas the Jet Database Engine expects database field names in the form "table.field", these databases return "owner.table.field." If you select Modify Table Names for Jet Engine., Quality Analyst will try to modify the internal table names so they are acceptable to the Jet Database Engine ("owner.table" is changed to "owner_table"). If an SQL query is used, it is also modified.

Note: The "Jet 2.0 / Visual Basic 3.0 Compatibility Layer" will also resolve these syntax problems. If the Compatibility Layer is installed, this setting has no effect.

Saving the Password with a Data Set

If your external database is password-protected, select Save Password with Data Set if you want to save your user name and password in the header (.hed) file of the Data Set. When you subsequently open the Data Set, Quality Analyst will retrieve the user name and password from the header file rather than ask you to enter it each time. This applies to normal use and in Run Files containing commands that access the external database. This setting can be a time-saving convenience but can also pose a security risk since the user name and password are stored in an ASCII file and are not encrypted.

Data Retrieval

In the area labeled Data Retrieval, select Snapshot to return actual data records from an external database to Quality Analyst. Select Dynaset to return keys to database records instead of the actual records.

Either setting will work with any access method. Which technique is fastest depends on factors outside the scope of Quality Analyst. Only by experimenting with both can you determine the fastest technique. The results may, in fact, be nearly identical.

Database Debugging

In the area labeled Database Debugging, select Debug Window if you want Quality Analyst to display a dialog box containing details of each database command before the command is issued. This method is tedious to use, but provides immediate feedback on each step of database connectivity

Select Debug Logging if you want Quality Analyst to write details of each database command to a log file.

See Debug and Message Logging on page 492 [481].

Note: To view the log file, select About Quality Analyst from the Help menu of the Quality Analyst Editor, and click the Show Debug Log button. You can print the log or copy it to the Clipboard. Northwest Analytical technical support will often ask that you fax or e-mail them a copy of the log. The log file is cleared when you exit Quality Analyst.

ODBC Settings

In the area labeled ODBC Settings, enter timing parameters for ODBC (Open DataBase Connectivity) connections.

In the Login Timeout box, enter the number seconds Quality Analyst should wait for the ODBC database to respond before canceling the attempt to connect to the database.

In the Query Timeout box, enter the number seconds Quality Analyst should wait for the ODBC database to respond to a query before canceling the query.

In the Connection Timeout box, enter the number of seconds Windows should keep the ODBC connection open after Quality Analyst requests it to close. The default setting is 1 second. If you enter 0, the ODBC

connection will remain open until you close Quality Analyst. Windows does this because it's more "efficient" if the connection is reopened a second time. During the time Quality Analyst has an open ODBC connection, applications that require exclusive use of the external database cannot run. Setting this parameter to one second reduces the potential for conflict.

MS Jet Database Engine

The area labeled MS Jet Database Engine contains several settings that manage how Microsoft Access security affects Quality Analyst connectivity.

If you select Use Access Security File, Quality Analyst will instruct the Jet Database Engine to use the Access System Database (often named SYSTEM.MDA). This file contains the permissions for all user identifications and passwords. The user's identification and password can only be verified if this file is available.

The Access System Database file may be in the NWA Quality Analyst directory where the Jet Database Engine can find it, but generally it is in a different directory. Select Always Ask for Access Security File if you want Quality Analyst to prompt you for the location of the Access System Database each time you connect to the database. If you leave this setting cleared, Quality Analyst will ask you once for its location the next time you connect to the database. After you enter its location, Quality Analyst stores it for subsequent use. (To change the location of this file later, return to this tab, select Always Ask for Access Security File, connect to the database, enter the location of the file when prompted, close the connection to the database, return to this tab, and clear the Always Ask for Access Security File check box again.)

If you clear the Use Access Security File check box, user identifications and passwords cannot be verified, so you should clear the Access Logon check box (see below). No Access security will be used.

It might seem that, by clearing the Use Access Security File and Access Logon check boxes and hiding SYSTEM.MDA, the entire security system can be circumvented. While this will allow the Microsoft Jet Database Engine to be used without a user identification and password, Microsoft Access databases that were created with password security will not be directly accessible.

Select Access Logon if you want Quality Analyst to send a user name and password to the Jet Database Engine. Enter the User Name and Password in the adjacent boxes. If you select Ask for Access Logon, Quality Analyst will prompt you for a username and password each time you connect to an external database. The current settings for User Name and Password, if any, will appear as defaults in that prompt.

Before entering a User Name and Password here on the External Database tab, you should consider the security risk. Anyone using the computer can view these settings. If strict security is vital, leave Password (and maybe even User Name) blank and select Ask for Access Logon.

The user name and password are used whenever the Jet Database Engine is started. Jet uses them with all external databases. In addition, with password-protected Microsoft Access databases, the user identification and password must have "read" permission for the database.

If you clear the Access Logon check box, the Jet Database Engine will use "Admin" for User Name and nothing for Password.

The QAEDIT.INI File

The settings you specify on the External Database tab of the Quality Analyst Setting dialog box are stored in the file QAEDIT.INI in the \WINDOWS folder. There are several other connectivity settings in this file that apply to specific database types. You can modify these settings by editing QAEDIT.INI, an ASCII text file, using any text editor. Please note the following when modifying this file:

- Use an editor (such as Windows Notepad) that works only with plain ASCII text. If you must use a word processor such as Microsoft Word, make sure you save the file as pure text, with no formatting codes. (Because "full-featured" word processors can save "invisible" formatting codes that make an INI file unusable by its application, it is much safer to use a "dedicated" plain-text editor).
- Use care. Quality Analyst reads the settings in this file each time it starts. Since Windows applications read their INI files on startup, you must close Quality Analyst, if it is running, and restart it for changes in QAEDIT.INI to take affect.

```
Note: If you use Quality Analyst under OS/2, you must reboot your computer for changes in QAEDIT.INI to take effect.
```

• If the QAEDIT.INI file becomes damaged, you can restored it to its default condition by deleting it and restarting Quality Analyst. This will cause a fresh copy of QAEDIT.INI to be created with default settings.

As with most INI files, QAEDIT.INI is divided into sections with labels enclosed in square brackets. The settings in each section consist of a keyword, an equals sign, and the value of the configuration parameter. The sections and additional parameters in QAEDIT.INI are:

```
[Installable ISAMS]
Paradox 3.X=PDX110.DLL
Paradox 4.X=PDX200.DLL
dBASE III=XBS110.DLL
dBASE IV=XBS110.DLL
FoxPro 2.0=XBS110.DLL
FoxPro 2.5=XBS110.DLL
[dBASE ISAM]
Deleted=On
[Paradox ISAM]
ParadoxUserName=
ParadoxNetPath=
ParadoxNetStyle=
CollatingSequence=Ascii
```

The following sections explain these parameters.

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➡ Ignore the section titled [Options].

Add this note to the *Microsoft Access / Jet Database Engine* section:

Note: Refer to the *Setup and Tutorial* guide for important information about installing and removing the Microsoft "Jet 2.0 / Visual Basic 3.0 Compatibility Layer" using the QACOMPAT.EXE program.

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➡ Replace the last paragraph and the rest of this section on the next page with the following text and screen shots.

The debug log file is an ASCII text file and may be read by any editor or word processor. To display the debug log file in Quality Analyst, first open the Help menu and select About Quality Analyst.

About NWA Quality Analyst	X
NWA Quality Analyst, Version 5.1 NWA Quality Analyst Editor, October 8, 1997 4:21pm LAN Version with Database Connectivity NWA Quality Analyst(TM) is a trademark of Northwest Analytical, Inc. Copyright 1997 Northwest Analytical, Inc.	<u>O</u> K Print Printer Copy
Current Date: 10-10-1997 Current Time: 09.03.18 Delay, Extra File Open: 1 Delay, File Close: 0 Delay, GetModuleUsage: 1 Delay, Graph Start: 0 Delay, Semaphore: 1 Directory, Application: C:\VB\QAEVF\ Directory, Current: C:\VB\QAEVF\ Directory, Current: C:\VB\QAEVF\ Directory, Graphics: C:\VB\QAEVF\ Directory, Graphics: C:\VB\QAEVF\ Directory, Graphics: C:\VB\QAEVF\ Directory, StartUpDir: C:\VB\QAEVF\ Directory, StartUpDir: C:\VB\QAEVF\ Directory, System: C:\VB\DDWS\SYSTEM\	×

Quality Analyst Help About dialog box showing Show Debug Log button

Note: You can print the information in this dialog box or copy it to the Clipboard by clicking Print or Copy respectively.

If Debug Logging is selected, this dialog box will include a Show Debug Log button. Click it to display the debug log file.



Example debug log file

To print the debug information, click Print. To copy the information to the Clipboard, click Copy. If you need technical assistance from NWA,

faxing or e-mailing this information to us may help us resolve your problem.