PeopleSoft

EnterpriseOne Analyzer Tool 8.9 PeopleBook

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EnterpriseOne
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OneWorld Analyzer Tool Overview

J.D. Edwards OneWorld Analyzer Tool is an automated testing tool you use to gain detailed information about OneWorld processes. The tool works with J.D. Edwards OneWorld AutoPilot, which you use to write scripts that test OneWorld applications. OneWorld AutoPilot captures and stores detailed data on each script playback event, including J.D. Edwards database (JDB) and CallObject APIs. You can import this data into OneWorld Analyzer Tool, which displays the data in a variety of readable formats that make analysis of events easier. OneWorld Analyzer Tool assists information technologists charged with keeping enterprise resource planning (ERP) systems running at or near top performance levels because the event data includes the following:

- The time required to run each event
- Input and output values for parameters in CallObject and JDB application programming interfaces (APIs)
- Identification of event categories, such as database calls, event rules, and business functions
- Names of tables opened and closed during playback
- Names of applications and forms launched
- Identification of user handles and request handles
- Placement of events in threads generated during script playback

OneWorld Analyzer Tool allows you to study test data in several ways. For example, you can view all events in a chronological stream, isolate and view details about a single event, or categorize events, such as JDB calls against a specific table.

The information you capture, import, and view allows you to analyze your system's performance and to determine how efficiently processes run against different environments, operating systems, and servers. The tool clearly shows delays that occur during processing, allowing you to devise solutions that are based on hard data, not guesswork. Using the data, you can scale your system to accommodate users and to debug the system.

OneWorld Analyzer Tool is a useful tool for any or all of your:

- Application developers
- Information technology managers
- Quality assurance analysts
- Performance analysts interested in establishing performance benchmarks and determining the scale of the operating system

Key Terms

OneWorld Analyzer Tool is part of a software architecture designed to capture, store, and use OneWorld performance data. The other key components of the architecture are the folllowing:

- OneWorld AutoPilot: an automated testing tool you use to write scripts to test OneWorld functionality. It also captures performance data during script playback, using both internal code and OneWorld code.
- OneWorld Event Capture: an automated testing tool that you use to capture events from a OneWorld session without using a OneWorld AutoPilot script.
- Event stream: the chronological listing of events that occur during a test, including JDB and CallObject API calls to the database and to business functions.
- OneWorld Virtual User Tool: a collection of automated testing tools that you use to create virtual scripts, which you run to simulate many users working on one or more workstations.
- Virtual Script Editor: a utility in Virtual User Tool that you use to edit an event stream and to generate a virtual script.
- Virtual Script Player: a utility in Virtual User Tool you use to run virtual scripts.

The roles of the components in the architecture are:

- OneWorld AutoPilot and OneWorld Event Capture capture and store the event stream, either by running a script or by running processes directly in OneWorld.
- OneWorld Analyzer Tool imports the event stream for process analysis and debugging.
- OneWorld Virtual User Tool allows the user to import an event stream and edit it to generate a script that can be run on a single workstation to simulate the actions of one or more OneWorld users.

OneWorld Analyzer Tool Utilities

OneWorld Analyzer Tool allows you to break down test data and view it in a variety of ways. You can use the tool to:

- View the event stream.

  OneWorld Analyzer Tool allows you to view the event stream from beginning to end. The tool displays detailed information about each event, including its elapsed time.

- View the parameters of JDB and CallObject API calls.

  For example, you can view the input and output parameter values of an API call.

- View details about a particular category of event, such as JDB API calls, or event rules.

  For example, you can see the number of API calls on a particular table and the total time required completing the calls.

- View all events that occurred during playback.

  For example, you can view events grouped by user handle.

- View in graphic form, such as bar or pie charts, the total time the system required to complete categories of events.

  For example, you can create a bar graph that shows the total time the script took to complete all JDB calls, CallObject calls, and event rules.

- Plot various timeline modes, which display the time of occurrence and duration of playback events.

  For example, you can simultaneously view the time required to run threads, hRequest handle calls, and user handle calls during script playback.

- Display the code coverage you accomplished during playback.

  For example, the number of forms in an application, as well as the number of controls in each form, that OneWorld AutoPilot accessed during a test.

See Also

- *OneWorld AutoPilot Overview* in the *AutoPilot Guide*
- *OneWorld Virtual AutoPilot Overview* in the *Virtual AutoPilot Guide*

Capturing Data for OneWorld Analyzer Tool

Before you can use OneWorld Analyzer Tool, you must capture and store data on OneWorld processes. You do this by configuring OneWorld AutoPilot to capture script playback data and to store it as an event stream, which is a time-stamped record of test events. You then run a OneWorld AutoPilot script to test OneWorld events, including button clicks, entries to header controls and grid columns, form and row exits, and so on.

OneWorld AutoPilot captures data during script playback through code placed in both OneWorld AutoPilot and OneWorld. This code records information about each script playback event and writes the data to the AutoPilot Playback Results Detail Table (F97214), where it is stored. This table is a test results repository that can be shared by all members of your organization.

If you do not have the resources to write and to run OneWorld AutoPilot scripts, you can use Event Capture, which captures and stores performance data when you run tasks in OneWorld, without involving OneWorld AutoPilot. Using Event Capture, you can import test results to OneWorld Analyzer Tool, just as you can when you run OneWorld AutoPilot scripts. You can activate Event Capture for a limited set of OneWorld processes, and then turn it off when these processes complete.

Whether you use OneWorld AutoPilot or Event Capture, you import the event stream to OneWorld Analyzer Tool to study and analyze the test data, with the goal of studying OneWorld processes and improving OneWorld performance.

OneWorld AutoPilot Playback Tab

Before you can use OneWorld Analyzer Tool, you must be able to capture data about OneWorld processes. You can set AutoPilot to capture and store the event stream during and after script playback.

To capture the event stream, you configure playback by choosing Options from the Tools menu of the J.D. Edwards OneWorld Scripting Tool form. Under the Playback tab, you find options that allow you to set up script playback and data capture during script playback. For playback configuration purposes, the Playback tab is the only tab in the Options form with which you must work.

Under the Playback tab, you choose options to save and display results data after playback. The first option ensures that AutoPilot stores the captured data in a results repository, AutoPilot Playback Results Detail Table. The second option allows AutoPilot to display a form summarizing the events that occurred during playback.

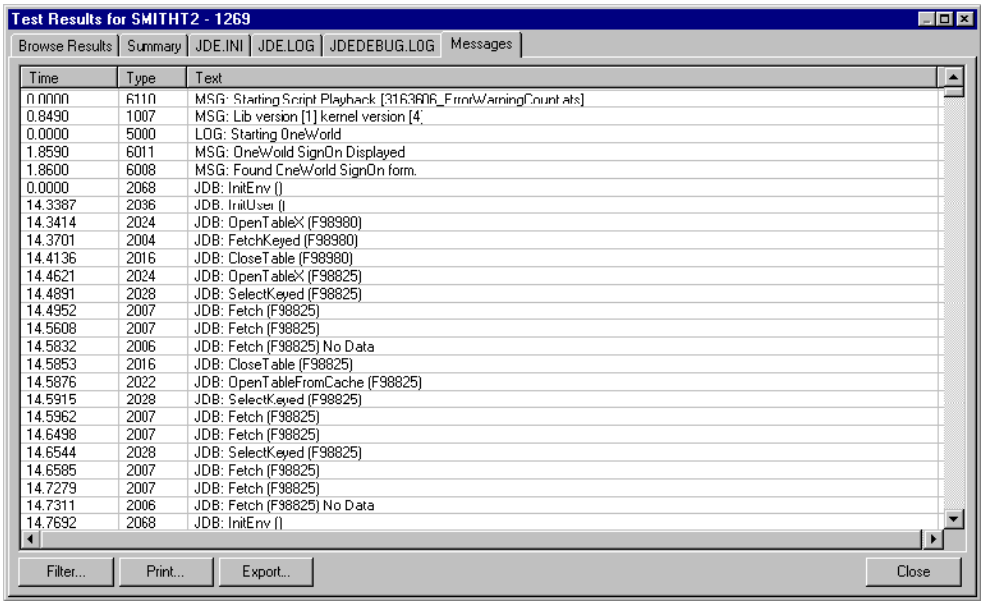
The options in the Events Stream Capture Level box specify the type of data you want AutoPilot to capture. Call level refers to an API call's position in the sequence of calls. The more primary an API call's position, the lower the call level. For example, an EditLine business function that invokes a JDB Fetch API has a call level of 1 because it spawns the JDB call. The JDB Fetch API has a call level of 2 in this example.

AutoPilot allows you to capture either level 1 calls only or all levels of calls. When you import the results into OneWorld Analyzer Tool, the event stream displays the API calls at the level you specified. The event stream capture level options are:

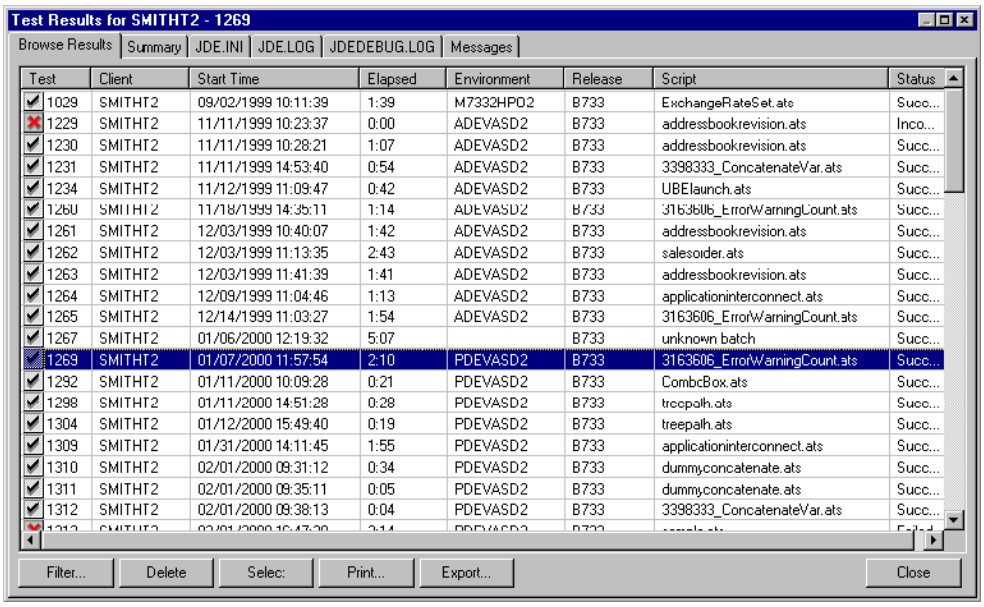
- None, which means that AutoPilot does not capture script playback data
- OneWorld warning and error messages, which means that AutoPilot captures OneWorld messages, but does not capture data about OneWorld processes
- Level 1 API calls, which means that AutoPilot captures data about all events except those API calls with a call level greater than 1
- All API call levels, which means that AutoPilot captures data about all events, including those API calls with a call level greater than 1

With playback configured, you will need to write a AutoPilot script, if you have not already done so, and play it back. For details on writing and playing back AutoPilot scripts, see the AutoPilot Guide.

If you configure playback to capture and display the results, AutoPilot displays the Test Results form after you have run a script to completion or have cancelled playback. The Test Results form shows the event stream and other data about the test you ran.



AutoPilot stores all the test results you have generated. If you choose Results from the Tools menu, you can view all the tests available for import to OneWorld Analyzer Tool.



OneWorld Event Capture

You can capture OneWorld performance data without using AutoPilot by launching the OneWorld Event Capture executable. Using OneWorld Event Capture is advantageous if no one in your organization can create and run an AutoPilot script, or if time and manpower resources are scarce. If either is the case, you simply launch the executable and perform a set of tasks in OneWorld. Code in OneWorld captures all the data from the session and passes it on to OneWorld Event Capture via a shared file in memory. OneWorld Event Capture stores the data in the results repository, AutoPilot Playback Results Detail Table (F97214).

Once you have generated test results using OneWorld Event Capture, you can save them to a file and export them to the OneWorld Analyzer Tool, just as you would if you used AutoPilot. The only difference is that the event stream generated by AutoPilot includes both AutoPilot and OneWorld events. The event stream generated by OneWorld Event Capture does not include AutoPilot events.

OneWorld Event Capture can be particularly useful if you:

- Lack the time or resources to write AutoPilot scripts
- Want to preserve data from a particular OneWorld process that you suspect is causing a performance problem

Once you capture the data from a OneWorld session and save the results, customer support, even from a remote location, can use the OneWorld Analyzer Tool to generate the event stream, analyze the events of the OneWorld session, and attempt to identify and correct any problems that might exist, preventing the need for costly site visits.

Call Level Option

Like AutoPilot, OneWorld Event Capture allows you to capture either level 1 calls only or All API call levels of calls. When you import the results into the OneWorld Analyzer, the event stream displays the API calls at the level you specified.

Caution Concerning the Default Setting for Top Level Calls

The default setting is for the All API call levels option. However, you should begin all OneWorld Event Capture sessions with the Top level call only option chosen. Capturing all API calls at All API call levels will significantly increase the size of your saved results files and could make customer support analysis of the event stream a more difficult task. Use the All API call levels option only if customer support requests additional data to make a diagnosis.

Start Capture Button

You begin data capture with OneWorld Event Capture by launching the executable and clicking Start Capture. The OneWorld Event Capture form appears.

After you click Start Capture, you can provide a script name for identification purposes. Clicking Start Capture means that you will collect results of your OneWorld session in the results repository continuously until you click either Stop Capture or Exit.

Stop Capture Button

When you finish the OneWorld session, click Stop Capture, which ends OneWorld Event Capture collection of data. At this point, you can export the collected results to a file, which OneWorld Event Capture prompts you to name. In addition to the script name, saved results contain the following identifying information:

- Workstation
- Environment
- OneWorld release
- Capture date
- Capture time
- Elapsed time

After you stop data capture, the data from the OneWorld session resides in the results repository and is available to you when you launch OneWorld Analyzer Tool to import data.

See Also

- *OneWorld AutoPilot Playback Tab* in the *Analyzer Tool Guide*
- *OneWorld AutoPilot Overview* in the *AutoPilot Guide*
- *OneWorld Virtual AutoPilot Overview* in the *Virtual AutoPilot Guide*

Capturing Test Data

AutoPilot allows you to capture data when you play back a script that tests OneWorld applications. To do so, you use settings on the Playback tab when you choose Options from the Tools menu from the AutoPilot menu bar. On the Playback tab, choose an option to capture the Virtual AutoPilot event stream. After script playback completes, or you cancel playback, AutoPilot saves the results to a repository, from which you can import them into OneWorld Analyzer Tool.

Alternatively, you can capture data about a OneWorld session by launching OneWorld Event Capture, which assists you in writing an AutoPilot script.

Configuring AutoPilot to Capture Test Data

You set up AutoPilot to capture test data either before, during, or after you write your AutoPilot script. With the setting intact, AutoPilot captures and stores the record of AutoPilot and OneWorld events that occurred during playback.

► To configure AutoPilot to capture test data

1. On AutoPilot, choose Options from the Tools menu.
2. On Options, click the Playback tab.
3. Click the following options.
   - Save Results Data after Playback
   - Display Results Data after Playback

   Note
   Choosing these options ensures that AutoPilot can capture and display event data. The type and amount of data, if any, that will be displayed is determined by choosing an Event Stream Capture Level option.

4. In the Events Stream Capture Level box, click the Level 1 API calls option.
5. Click OK.
6. On AutoPilot, choose Play from Top from the Play menu,.

   After playback completes or you cancel playback, AutoPilot displays the Test Results form, which contains information about the script that you ran. This is the chronological record of the events during script playback.

7. On Test Results, click the Summary tab, and note the number of the test located next to the Machine heading.

   You use the number of the test to identify it later when you import a test into OneWorld Analyzer Tool.

Using OneWorld Event Capture to Capture Test Data

You can capture test results without creating an AutoPilot script by using OneWorld Event Capture. After you start OneWorld Event Capture, you perform any OneWorld tasks that you want to test. OneWorld Event Capture stores the results in the results repository. You can export the results to a file, and then you or customer support can import the data to OneWorld Analyzer Tool.

► To use OneWorld Event Capture to capture test data

From your desktop or the appropriate directory, double-click the OneWorld Event Capture executable.

1. On OneWorld Event Capture, choose one of the following JDB, CallObject capture level options:
   - Top level calls only
   - All levels
2. Assign a description for the data to be captured and stored in the Description of this capture field. You do not have to assign a description. The system will assign a test number for you.
3. Turn on the following option:
   - Once capture is complete, copy to external file
4. Click Start Capture.
5. In OneWorld, perform any tasks that you want to test.
6. When you have completed the OneWorld tasks, click Stop Capture.

Note
To stop the process, click Exit.

Importing Data for OneWorld Analyzer Tool

After you save event stream data from a OneWorld AutoPilot script playback session, you can view the data in OneWorld Analyzer Tool by importing it. The Result Sets form provides general information about each test that you ran. You can choose one or more tests from this form and import the result data into OneWorld Analyzer Tool. This allows you to view the specific details of the playback session.

From the Result Sets form you can also export results to a file on your hard drive. OneWorld Analyzer Tool stores the results as a binary file that you can e-mail to an outside source, who can import those results to OneWorld Analyzer Tool to troubleshoot the test. This feature enables customer support, for example, to work on OneWorld performance problems from a remote location.

Importing Test Results

OneWorld Analyzer Tool allows you to import the results of AutoPilot tests, using features available in the Result Sets form. You can restrict the number of tests available for view in the form by using OneWorld Analyzer Tool's filter functionality. You can import one set of test results, or you can import more than one set to compare test results to one another. You also can delete one or more tests from the Result Sets form.

Note

OneWorld Analyzer Tool is part of the OneWorld installation and is located in the applicable OneWorld directory as follows:

```
\\OneWorld directory\System\Bin32\Analyzer.exe.
```

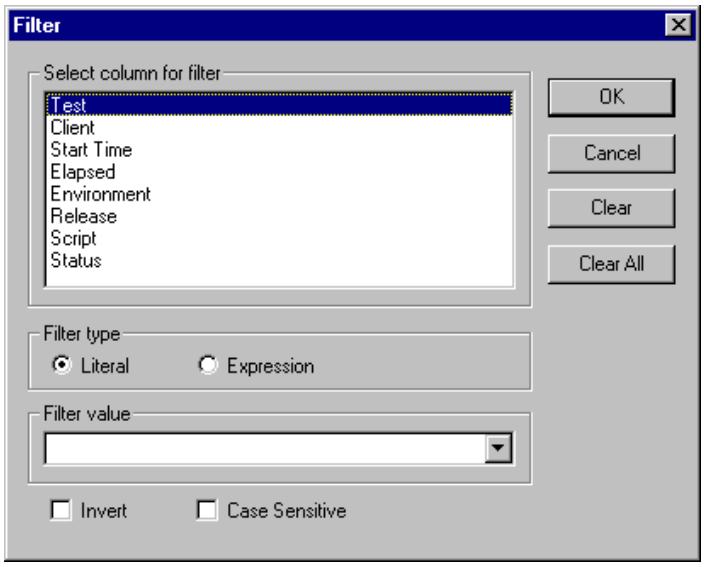
Result Sets Form

Using the Result Sets form, you can view general information about the results that you saved for each script. You can select one or more tests from the form and import the results to OneWorld Analyzer Tool, export the results to a file on your hard drive, filter the results, or delete tests from the repository.

From your desktop or the appropriate directory, choose the OneWorld Analyzer executable. On J.D. Edwards OneWorld Analyzer Tool, choose either Choose or Import from file from the Results menu.

Data Categories in the Result Sets Form

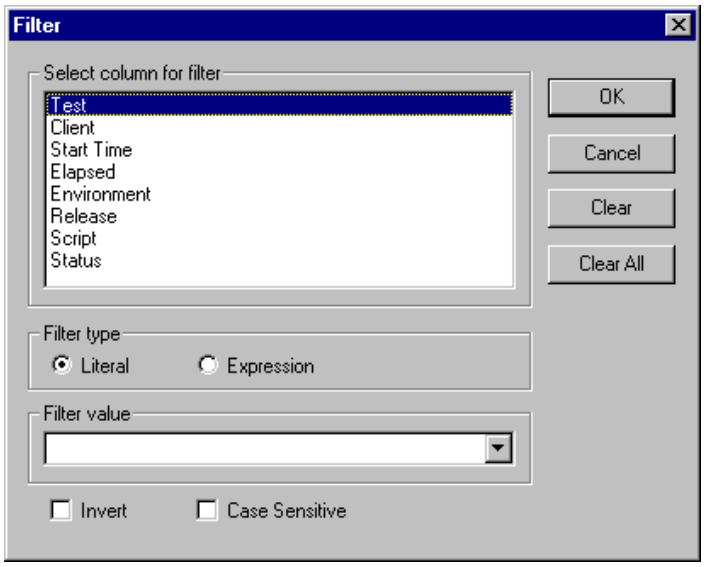
The number of each test that you ran to capture test results appears in the Result Sets form. Other categories of information provided include client name, the start time of the test, the elapsed time of the test, the environment in which you ran the test, the OneWorld release against which you ran the test, the script path, and the status of the test: successful, failed, or cancelled. On the Results Set form, a checkmark next to the test number indicates that the test ran successfully. An X next to the test number indicates that the test failed or was canceled.



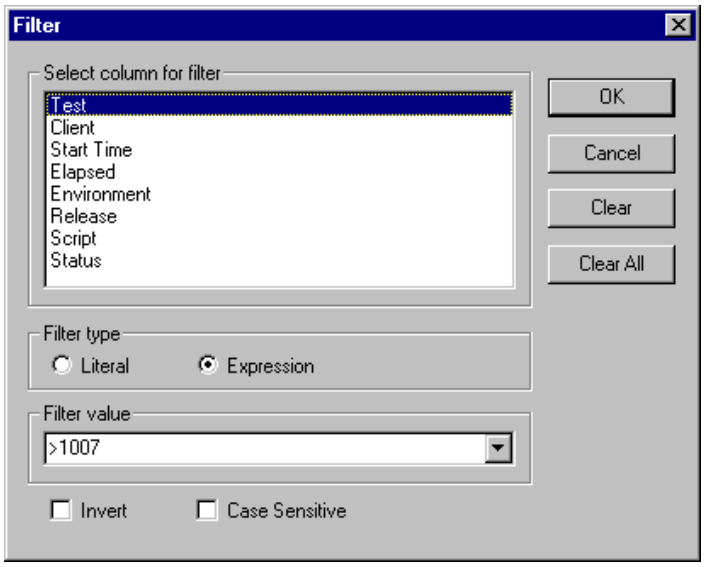
You can sort the contents of each category by clicking the category name. OneWorld Analyzer Tool sorts alphabetically, in ascending, or in descending numeric order. For example, if you click the Elapsed category, OneWorld Analyzer Tool displays the test with the shortest elapsed time first, followed by other tests in ascending order of elapsed time. The test with the longest elapsed time appears at the bottom of the category list. If you click the Script category, OneWorld Analyzer Tool sorts the list alphabetically by the name you assigned the test. The Refresh button allows you to restore the contents of a category to its original state.

Result Sets Form Filter Button

From the Result Sets form, you can filter the view using any of the categories in the form as selection criteria. To do so, click Filter on the right side of the form.



From the Filter form, choose a column name as a selection criterion. From the two options, Exact Match and Expression / Contains, you can further refine the filter. When you choose one of these options, you enter a value to the unpopulated Filter Value list. If you choose Exact Match as a filter type, type an integer into the Filter Value list. If you choose Expression / Contains as a filter type, type in a string. You can also type in expressions for greater than, less than, equal to, and so on. For example, if you want to filter for tests with numbers greater than 1007, choose Expression / Contains as a filter type, then type >1007 in the Filter Value list.



OneWorld Analyzer Tool filters the entries in the Result Sets form so that only those tests with a number greater than 1007 appear. If you choose the Invert option, OneWorld Analyzer Tool reverses the criterion and filters in only those tests with a number less than 1007.

After you have set up the filter criteria to your satisfaction, click OK. To restore the Result Sets form to its original state, click Clear All on the Filter form.

Result Sets Form Select Button

From your desktop or the appropriate directory, choose the OneWorld Analyzer executable. On J.D. Edwards OneWorld Analyzer Tool, choose Choose.

OneWorld Analyzer Tool allows you to import one or more sets of OneWorld AutoPilot results. This feature could be particularly useful if you want to compare the results of two separate scripts that you wrote to test the same application against different OneWorld releases or against different environments. You can choose to import more than one test by holding down either the Control or the Shift key and clicking multiple lines on the Results Sets form. After you have made your selection, click Select. The OneWorld Analyzer Tool user interface appears, and you can view in detail the results of a particular test.

Result Sets Form Export to File Button

The Export to file button allows you to export test results from the Result Sets form to a directory on your local drive. The default file extension is .owr (OneWorld Results Archive). OneWorld Analyzer Tool stores the results as a binary file, which you can e-mail to customer support if you need assistance solving a performance problem. Customer support can import the binary file to OneWorld Analyzer Tool and troubleshoot the problem.

J.D. Edwards recommends that you use the Export to file and Import from file options when saving or opening a test file.

Import from File Option

From your desktop or the appropriate directory, choose the OneWorld Analyzer executable. On J.D. Edwards OneWorld Analyzer Tool, choose Import from file from the Results menu.

If you have been e-mailed a binary file containing test results, you can import it to OneWorld Analyzer Tool by clicking Import from file in the Result Sets form or by choosing Import from file from the Results menu of the OneWorld Analyzer Tool form. The .owr file opens, revealing any exported files. When you open a file, OneWorld Analyzer Tool imports the results for analysis.

J.D. Edwards recommends that you use the Export to file and Import from file options when saving or opening a test file.

Result Sets Form Delete Button

You can also delete tests from the Result Sets form. You select a test by clicking the line that contains the test and click Delete. OneWorld Analyzer Tool deletes the test. To delete more than one test, hold down the Control or the Shift key, select the lines containing the tests you want to delete, and click Delete. Remember that each test contains a large amount of data. Therefore, you should regularly purge tests from the results repository to avoid consuming a great deal of disk space.

Filtering Test Results

Before you import the results of a AutoPilot test, you can simplify the view in the Result Sets form by filtering the list of test results. To do this, click the Filter button and use the Filter form to:

- Select a column for filtering.
- Invert the filter value.
- Refresh the AutoPilot Result form after filtering.

Selecting a Column for Filtering

On the Filter form, the Select Column for Filter list contains the name of each column in the Result Sets form. To filter the entries in the Result Sets form, choose a column from this list. Establish filtering criteria using the Filter Type options and Filter Value. When you apply these criteria, OneWorld Analyzer Tool filters into the Result Sets form only those tests that match your criteria.

► To select a column for filtering

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. On J.D. Edwards OneWorld Analyzer Tool, choose Choose from the Results menu.
2. On Result Sets, click Filter.

   The Filter form appears.
3. On Filter, choose the name of a Result Sets form column from the Select Column for Filter list.
4. Choose one of the following filter types:
   - Exact Match
   - Expression / Contains
5. Type either a literal value or an expression in the unpopulated Filter Value list.

   Note
   If you choose Exact Match, type integers only. If you choose Expression / Contains, type a string. Choosing Expression / Contains also enables you to type a conditional, such as greater than, less than, or equal to.
6. Click OK.

Inverting the Filter Value

After you filter entries in the Result Sets form, you can use the Invert option on the Filter form to invert your selection criteria to change the view in the form.

► To invert the filter value

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. On J.D. Edwards Analyzer Tool, choose either Choose or Import from file from the Results menu.
2. On Result Sets, click Filter.
3. On Filter, choose the Invert option.
4. Click OK.

OneWorld Analyzer Tool inverts the selection criteria and reflects those changes on the Result Sets form.

Refreshing the Result Sets Form after Filtering

After you filter the entries in the Result Sets form, you can restore the form to its original state using the Filter form.

► To refresh the Result Sets form after filtering

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. On J.D. Edwards Analyzer Tool, choose either Choose or Import from file from the Results menu.
2. On Result Sets, click Filter.
3. On Filter, click Clear All.
4. Click OK.

   OneWorld Analyzer Tool refreshes the Result Sets form so that you can once again view the available tests.

Importing Test Results to OneWorld Analyzer Tool

Once you capture an event stream, you can open OneWorld Analyzer Tool, select one or more tests that you ran and import the event stream data for analysis.

► To import test results to OneWorld Analyzer Tool

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. On J.D. Edwards OneWorld Analyzer Tool, choose Choose from the Results menu.

   The Result Sets form displays information about each test that you saved.

2. Select the test that you want to import.
3. Double-click the test or click Select.

   OneWorld Analyzer Tool imports the results of the test.

4. Click the title of the test you imported.

   The event stream appears in the detail area of the form.

Exporting Test Results to a File

You can export the results of a test to a file to send to an outside source such as customer support. OneWorld Analyzer Tool saves the results as a binary file to a directory of your choice.

► To export test results to a file

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. On J.D. Edwards OneWorld Analyzer Tool, click List Result Sets on the toolbar.
2. In the Result Sets form, choose one or more tests.
3. Click Export to file.
4. Assign names to the tests and click Save.

   OneWorld Analyzer Tool saves the results as a binary file. To send the file to someone else, attach it to an e-mail.

Getting Test Results from an External Source

People within or outside of your organization can import results that you save as a binary file to the OneWorld Analyzer Tool.

► To get test results from an external source

If you have received the binary file as an attachment to an e-mail, save the attachment to a directory of your choice.

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. On J.D. Edwards OneWorld Analyzer Tool, choose Import from file from the Results menu.
2. Open the file where you saved the binary file.
3. Select the file name and click Open.

   OneWorld Analyzer Tool imports the test results from the binary file.

Deleting Test Results

To avoid creating an unmanageable results repository, you should regularly delete test results that are out of date or no longer useful.

► To delete test results

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. On J.D. Edwards OneWorld Analyzer Tool, click List Result Sets on the toolbar.
2. Click the test results that you want to delete.
3. Click Delete.

Analyzing Data with OneWorld Analyzer Tool

After you import the results of one or more tests, you work in the J.D. Edwards OneWorld Analyzer Tool form. You use the following three panes to break down and to analyze the test data:

Report pane Contains general details about each test that you import into OneWorld Analyzer Tool.

Analysis pane Allows you to choose a variety of formats in which to present test data. You can also filter the list of events by applying limiting criteria, such as event type.

Event pane Allows you to view individual or aggregated details of test events after you have selected the test level you want to view in the report pane, such as a particular application or form, and the limiting criteria you want to apply to the view in the analysis pane.

Together the three panes allow you to analyze OneWorld operations from different perspectives. The tool enables you to move with precision to a low level of script playback detail or to aggregate detail. Using this information about the application you tested, you can evaluate the script playback, noting, for example, processing delays.

OneWorld Analyzer Tool Interactive Panes

After you import one or more scripts from the Result Sets form, you can view the test results at various levels of detail. The J.D. Edwards OneWorld Analyzer Tool form displays three panes. You work in each of these panes to set up the way that you want the form to display information about events that occurred during script playback.

The report pane contains information about the test you imported into OneWorld Analyzer Tool, including its name, any applications you tested, and so on.

The analysis pane contains tabs that allow you to establish the view of events from a variety of perspectives. For example, you can view the entire event stream captured during script playback, or you can isolated event types, such as JDB API calls.

The event pane displays details about the script playback. You determine the view that appears in the event pane by the choices you make in the analysis pane.

OneWorld Analyzer Tool Report Pane

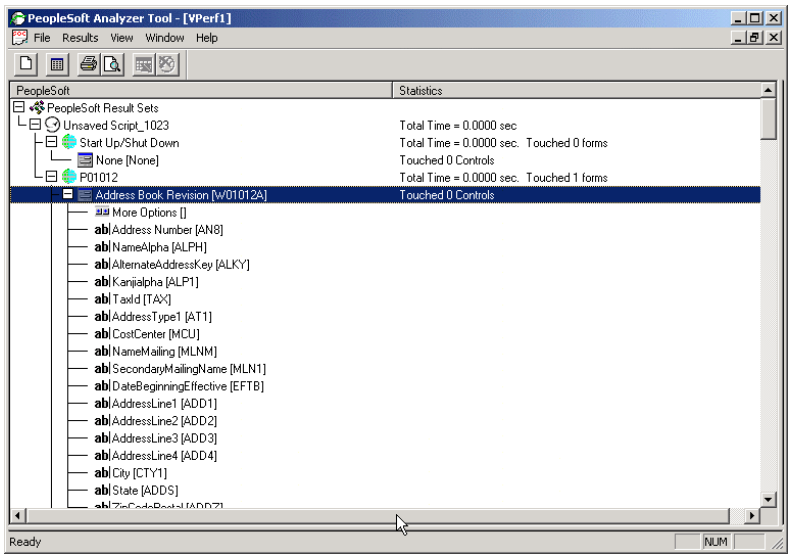
The report pane contains the following general details about each script that you import into OneWorld Analyzer Tool:

- Name of the script
- Time required for startup and shutdown
- Name of the applications tested
- Names of all forms in the applications
- Names of all header controls and grid columns in the forms

In addition, the report pane indicates which OneWorld forms, header controls, and grid columns that AutoPilot accessed during script playback, as well as the time required to run the entire script and various subsets thereof.

OneWorld Analyzer Tool displays the contents of the report pane in a parent/child relationship format. The ultimate parent is Master Report, which includes all the scripts that you import into OneWorld Analyzer Tool. You view the following information by expanding each node in the Master Report tree:

- Name of the script
- Start Up/Shut Down time for script playback
- Applications called and the total time the script spent running the application
- The number of forms in the application that were accessed during script playback
- The forms that were accessed during script playback
- The number of form header controls and grid columns accessed during script playback
- Names of all form header controls and grid columns and their data dictionary aliases and whether they were accessed during script playback



OneWorld Analyzer Tool displays the total time it took to run the entire script, startup and shutdown alone, and applications alone. The total time figure does not include time intervals between events.

The following table summarizes the information displayed in the report pane of J.D. Edwards OneWorld Analyzer Tool form:

Entry to OneWorld Column of the Report Pane	Entry to Statistics Column of the Report Pane
Master Report	N/A
AP Script Name	Total time to run script without time intervals between events
Start Up/Shut Down	Total time required for startup and shutdown
Application	Total time required to run the application and the number of forms accessed during playback
Form	Number of header controls and grid columns accessed during playback
Header Controls	Controls accessed during playback
Grid Columns	Columns accessed during playback

Note

The node that you select in the report pane, determines what you see in the event pane or the analysis pane. For example, if you click the application node in the report pane, script events that appear in the event pane are events that occurred during the playback of that application only.

OneWorld Analyzer Tool Analysis Pane

The analysis pane allows you to view some or all of the events that occurred during any stage of script playback. It also allows you to choose how you will view the events.

You work in the analysis pane in conjunction with the other two panes. In the report pane you choose a level of the test. For example, you might choose to analyze the events from the level of the entire test. Using options in the analysis pane, you can apply a selection criterion to limit the number of events you view in the event pane. For example, you might choose to view only JDB API calls.

Usage Report Tab

The Usage Report tab allows you to choose:

- The type of script events that you want to view, by category
- The criteria by which you group the events

For example, you might decide to view only CallObject APIs. Based on that choice, OneWorld Analyzer Tool displays only CallObject APIs. If you want to group these CallObject APIs by message, meaning that you want to see each CallObject API invoked by OneWorld during playback, you choose Group by Message as the criterion by which OneWorld Analyzer Tool groups the CallObject APIs.

The following options are available on the Usage Report tab:

- View Category
- Grouping
- Subtotal Options

View Category Option

The View Category options are:

- JDB Only
- CallObject Only
- Event Rule Only
- Others
- View All

Use these options to choose the type of playback event that you want to analyze.

Grouping Option

After you choose a category of event, you can group those events. Grouping options are:

- Group by Message
- Group by User Handle
- Group by Request Handle

Subtotal Options

You can view aggregate numbers of events within an event category and the total time required to run the events during script playback using Subtotal Options. The Subtotal Options are:

- Show Subtotal and Grand Total
- Place Grand Total on Top

You use the Subtotal Options feature with the View Category and Grouping options. For example, suppose you choose the CallObject Only option in View Category and the Group by Message option in Grouping. If you choose both Subtotal options, OneWorld Analyzer Tool displays the total number of CallObject APIs called during playback, the total number of times these APIs were called during playback, and the total amount of time required to run all of the calls at the top of the event pane.

Stream Tab

The Stream tab contains the complete record of all events that occurred during playback of the AutoPilot script and the elapsed time for each event.

The Stream tab also has a Filter button that lets you change the view of the event stream in the event pane. When you click Filter, the Filter form appears and allows you to sort events by the following:

- Start time
- End time
- Elapsed time
- Thread ID
- API call level
- User handle
- Request handle
- Message ID
- Message (such as OpenTable)

This form limits the number of tests that you view. Using the Filter form in the analysis pane, you might, for example, choose request handles equaling 15 as a filter.

If you apply this filter, the event pane displays only the playback events that match the criterion of an hRequest parameter of 15.

Time Line Tab

The Time Line tab displays the execution of script playback events plotted against a time line. You choose a time line mode from the following options:

- Plot by Message Type
- Plot by Message Thread ID
- Plot by User Handle
- Plot by Request Handle

When you choose a time line mode, the event pane displays a time line that allows you to view the time AutoPilot required to run script events, based on the criterion you chose. Time is displayed in seconds along the x-axis of the time line. The values of the mode are displayed along the y-axis. For example, if you choose to display the timing of events by user handle, the Y axis displays all user parameters used during script playback, along with the point in time that each occurred and its duration.

Coverage Tab

The Coverage tab enables you to see how extensively your script tested an application. When you click this tab, OneWorld Analyzer Tool displays in the event pane nodes that represent any applications that AutoPilot accessed during script playback. You can click these nodes to see how many forms in an application and how many header controls and grid columns in a form AutoPilot accessed.

OneWorld Analyzer Tool Event Pane

You use the OneWorld Analyzer Tool event pane to view the details of AutoPilot playback events after you have selected the following options:

- The level of playback that you want to view, from the report pane
- The limiting criteria you want to apply to the view, from the analysis pane

You can use the following features when you work in the event pane:

- Sort mechanism.
- View API call parameters.
- Export playback event details to Microsoft Excel.

Sort Mechanism

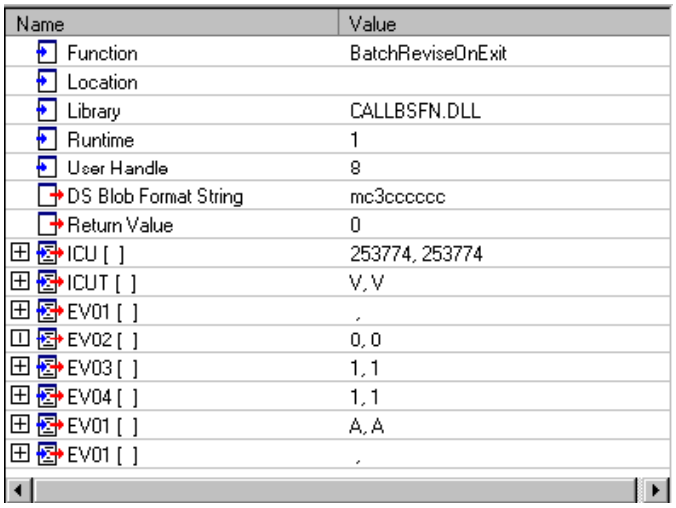
The event pane views that appear when you click the Usage Report and Stream tabs in the analysis pane have a sort mechanism you can use to manipulate the order of playback events. When you click a category in either one of these event pane views, OneWorld Analyzer Tool sorts the contents of the column:

- If the contents are integers, OneWorld Analyzer Tool sorts them in ascending or descending order.
- If the contents are strings, OneWorld Analyzer Tool sorts them in alphabetical or reverse alphabetical order.

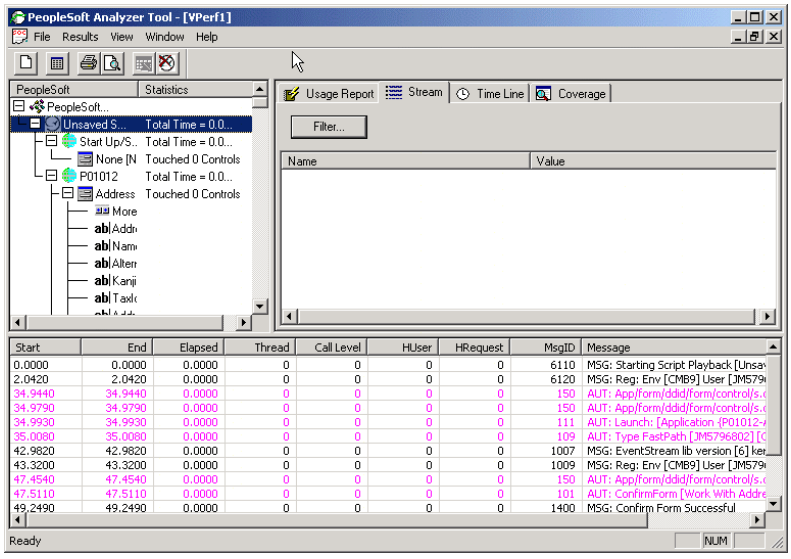
View API Call Parameters

With the event stream in the event pane, you can click a line containing the details of a JDB or CallObject API call and view the parameters of that call in the analysis pane.

The analysis pane view contains the name and value of each parameter, as well as directional arrows that indicate whether the parameter value was used as input to or an output from an API call. An arrow positioned to the left of the box next to the parameter name indicates an input value. An arrow to the right of the box indicates a value returned from an API call.



You can also click a line containing details of an AutoPilot event and view details of that event in the analysis pane. For example, you can view the application and form you chose in the AutoPilot script and entries you made to header controls and grid columns.



Export Playback Event Details to Microsoft Excel

You can export the playback details contained in an event pane view to a Microsoft Excel document. However, to do so, you must:

- View by clicking the Usage Report or the Stream tab in the analysis pane.
- Click inside the report pane.

The Export to Excel button in the toolbar is enabled. Otherwise, OneWorld Analyzer Tool disables the Export to Excel button.

Using OneWorld Analyzer Tool to Analyze Data

OneWorld Analyzer Tool user interface consists of three panes, each of which enables you to view in various ways the details of your AutoPilot script's playback. You use the panes to analyze the script playback data contained in the event stream.

The report pane allows you to choose the level of detail that you want to view for a test. For example, you might want to view all the events that occurred during script playback, or you might want to view only the events that occurred during the playback of one application.

The analysis pane allows you to choose criteria that further limit the number of events that you view and to choose the manner in which OneWorld Analyzer Tool presents those events, such as in a table or a graph.

The event pane contains the details of the events, presented in the manner that you chose.

Choosing a Report Level

You work in the report pane to choose the level of detail that you want to view in the event pane. You can also choose more than one test and view the comprehensive totals in the event pane.

► To choose a report level in the report pane

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. In the report pane of the J.D. Edwards OneWorld Analyzer Tool form, choose a report level by clicking it.
2. If you have imported two or more sets of test results, click the Master Report node.

   In the event pane, OneWorld Analyzer Tool displays the combined results of all the tests you imported.

Note
The event pane displays the events that occurred at the report level that you choose. You might want to click a tab in the analysis pane to alter the presentation of the view. For example, if you want to see the events displayed in a table format, click either the Usage Report tab or the Stream tab in the analysis pane.

Choosing Criteria for Event Analysis

When you work in the analysis pane, you can choose criteria that limit the type and number of script playback events that you view in the event pane, and you can choose the graphical presentation of the events. To accomplish these goals, you work with tabs that offer options in the analysis pane that allow you to change the view in the event pane.

Working with the Usage Report Tab

On the Usage Report tab, radio buttons allow you to view all the script playback events in the event pane, or you can choose a criterion that limits the playback events that you view. Once you choose a criterion, you choose a radio button option to group the events that you view by message, user handle, or request handle. You can also use the analysis pane view under the Usage Report tab to display aggregate numbers of details related to script playback events. For example, you can display the total number of CallObject API calls made during script playback.

Viewing Details of Playback Events Using the Usage Report Tab

The Usage Report tab enables you to view details of playback events. You can view all the events at the test level that you chose in the report pane, or you can choose a criterion to limit the kinds of events that you view. You can choose a criterion by which you group the events, such as by request handle.

► To view details of playback events using the Usage Report tab

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. On J.D. Edwards Analyzer Tool, click the Usage Report tab.
2. Choose one of the following View Category options:
   - JDB Only
   - CallObject Only
   - Event Rule Only
   - Others
   - View All

   All the script playback events or a category of playback events, such as CallObject APIs, display in the Event pane.
3. Choose one of the following Grouping options:
   - Group by Message
   - Group by User Handle
   - Group by Request Handle

Displaying Playback Event Subtotals

With the script playback events displayed in the event pane, you can view event subtotals, including number of events by category and the total time that script playback required to complete the events in that particular category. You can also display the grand totals, either at the bottom or at the top of the event pane.

► To display playback event subtotals

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. In the analysis pane on the J.D. Edwards OneWorld Analyzer Tool form, click the Usage Report tab.
2. Click an option in the View Category subpane.
3. Click an option in the Grouping subpane.
4. Click one of the following options:
   - Show Subtotal and Grand Total

     To show subtotals for events, with the grand totals displayed at the bottom of the event pane.

   - Place Grand Total on Top

     To show subtotals for events, with the grand totals displayed at the top of the event pane.

Working with the Stream Tab

When you click the Stream tab, the analysis pane appears with the event stream in the event pane. This is the complete record of script playback events. You can view this complete record or use the Filter button in the analysis pane to limit the kind and number of events that you view in the event pane.

Viewing Details of Playback Events Using the Stream Tab

The Stream tab allows you to view the event stream in the event pane. The event stream displays the script playback events in chronological order.

► To view details of playback events using the Stream tab

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

In the analysis pane of the J.D. Edwards OneWorld Analyzer Tool form, click the Stream tab.

The event stream appears in the event pane.

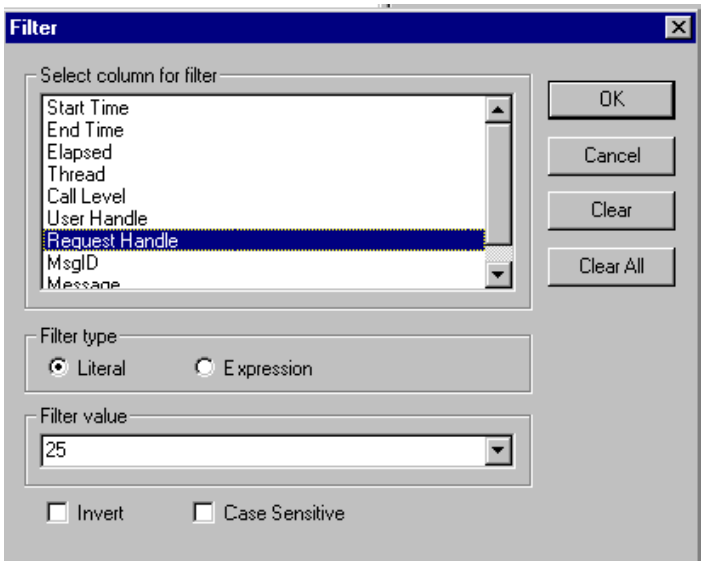
Filtering Events in the Event Stream

To manipulate your view of the event stream in the event pane, you use the Filter button on the Stream tab. Working in the Filter form you can limit the number and kind of events that appear in the event pane.

▶ To filter events in the event stream

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. In the analysis pane of J.D. Edwards OneWorld Analyzer Tool form, click the Stream tab.
2. Click Filter.
3. On Filter, choose a column in the event stream from the Select Column for Filter list.
4. To refine your filter criterion, choose one of the following options:
   - Exact Match
   - Expression / Contains
5. Enter a value in the Filter Value field.



6. Click OK.

   OneWorld Analyzer Tool filters the event stream for the value that you specified on the Filter form and displays the new view in the event pane.

Note
To invert the view in the event pane so that it filters out the value you enter on the Filter form, choose the Invert option and click OK.

Working with the Time Line Tab

The Time Line tab allows you to view the time AutoPilot required to run categories of events. OneWorld Analyzer Tool plots categories of events along the y-axis of a time line and the time, in seconds, on the x-axis. Using the Time Line tab, you can view the number and duration of different kinds of events in the event pane.

▶ To view details of events using the Time Line Tab

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. In the analysis pane of the J.D. Edwards OneWorld Analyzer Tool form, click the Time Line tab.
2. Choose one of the following Time Line Modes:
   - Plot by Message Type
   - Plot by Message Thread ID
   - Plot by User Handle
   - Plot by Request Handle

   OneWorld Analyzer Tool displays each event separately, with a bar. The bar allows you to see the starting point, ending point, and duration of the event.

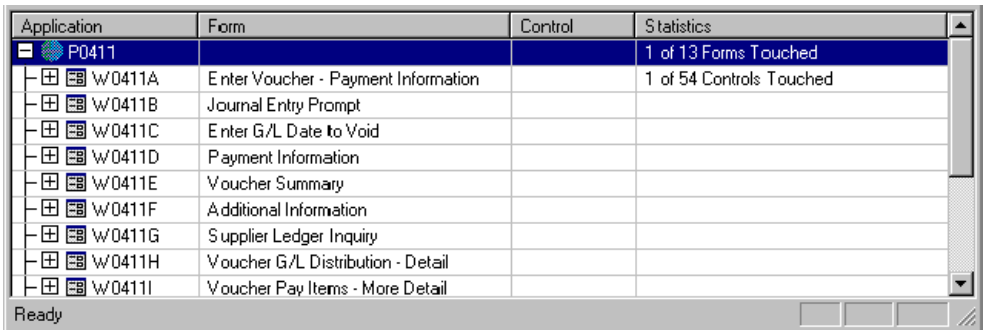
Working with the Coverage Tab

The Coverage tab allows you to view how extensively your AutoPilot script covered the code in a OneWorld application or form. You choose a test level in the report pane, and then click the Coverage tab. The event pane displays statistics on the applications, forms, header controls, and grid columns AutoPilot accessed during script playback. Click a test level, such as application, to view the coverage for that level of the test.

▶ To view code coverage using the Coverage tab

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. In the report pane of the J.D. Edwards OneWorld Analyzer Tool form, click the level of the AutoPilot test that you want to view.
2. In the analysis pane, click the Coverage tab.
3. In the event pane, click the level of the test that you want to view.



Viewing Details of Events

The event pane allows you to view script playback events. OneWorld Analyzer Tool displays these events based on the criteria you choose in the report and analysis panes. You choose actions in the event pane that alter your view of the script playback events, present a more detailed view of individual events, and offer you the opportunity to export the view to a Microsoft Excel spreadsheet.

Sorting Events in a Category

When you click the Usage Report tab or the Stream tab in the analysis pane, OneWorld Analyzer Tool displays the script playback events in a table with eight and nine columns, respectively. You can sort these categories in the event pane by clicking the category name. When you do so, OneWorld Analyzer Tool sorts in alphabetical or reverse alphabetical order those events described by a string. OneWorld Analyzer Tool sorts those events described by integers from least to greatest or from greatest to least.

For example, when you click the Usage Report tab, then choose from the View Category and Grouping options, OneWorld Analyzer Tool displays the events under eight categories in the event pane. In the Message column, the events initially appear in alphabetical order. When you click the column, OneWorld Analyzer Tool arranges the messages in reverse alphabetical order. In the Count column, the events initially appear in order of those that occurred the least number of times to those that occurred the greatest number of times. When you click the column, those that occurred the greatest number of times appear first.

► To sort events in a category

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. In the analysis pane of the J.D. Edwards OneWorld Analyzer Tool form, click either the Usage Report tab or the Stream tab.
2. If you click the Usage Report tab, choose a View Category and a Grouping option.

   Note
   If you click the Stream tab, the View Category and Grouping options do not appear, and you can proceed to Step 3.

3. In the event pane, click a column name.

Enabling the Parameter View in the Analysis Pane

When you display the event stream in the event pane, you can click a JDB or CallObject API event to view the parameters of that call. OneWorld Analyzer Tool displays the parameters and other information about the call in the analysis pane.

► To enable the parameter view in the analysis pane

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. In the analysis pane of the J.D. Edwards OneWorld Analyzer Tool form, click the Stream tab.
2. In the event pane, click a line containing a JDB or CallObject API call.

   A view of the parameters of the call appears in the analysis pane. You can also view details of some AutoPilot events, such as application launches and entries to header controls and grid columns.

Exporting Script Playback Event Details to a Microsoft Excel Spreadsheet

You can export script playback event details from the event pane to a Microsoft Excel spreadsheet when you have created an event pane view using the Usage Report tab or Stream tab in the analysis pane. Using this feature enables you to arrange the playback event details as you desire.

► To export script playback event details to an Excel spreadsheet

From your desktop or the applicable directory, double-click the OneWorld Analyzer executable.

1. In the analysis pane of the J.D. Edwards OneWorld Analyzer Tool form, click the Usage Report tab or the Stream tab.
2. If you click the Usage Report tab, choose a View Category and a Grouping option.

   Note
   If you click the Stream tab, the View Category and Grouping options do not appear, and you can proceed to Step 3.

3. Click inside the event pane, either on a line containing an event or on a column heading.

   The Microsoft Excel icon on the Word toolbar is enabled.

4. Click the Export to Excel icon on the toolbar.

   OneWorld Analyzer Tool exports the contents of the event pane table to a Microsoft Excel spreadsheet.