

# Dude, Where's My Log File?

## Making the Most of Progress OpenEdge Log Files

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**PROGRESS**  
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# Why Log Files?

- History
- Troubleshooting
- Security

# Introduction

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- Many components
- Diverse technologies
- Some common
  - AppServer, WebSpeed, Pacific AppServer for OpenEdge
  - Servlet container hosted components (adapters mainly)
  - ubroker.properties configuration

## Goals for This Session

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Where  
should I  
look?

What is in  
the log file?

How can I  
control the  
type and  
amount of  
messages?

# Progress OpenEdge Database

Database  
Log

<dbdir>/<dbname>.lg

- Location cannot be changed
- Startup parameter settings
- Date/time startup and shutdown
- User login/logout
- System error messages
- Utility and maintenance activity
- SQL server startup/shutdown

# Progress OpenEdge Database – Log Format

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[2014/09/16@15:25:45.022-0400] P-13259 T-47842003425760 I DBUTIL : (451)

[2014/09/16@15:25:4 P-13259 T-47842003425760 ER 0: (333)

Multi-user session begin.

[2014/09/16@15:25:45.509-0400] P-13267 T-46980969695680 I BROKER 0 : (15321)

Before Image Log Initialization at block 0 offset 0.

[2014/09/16@15:25:45.622-0400] P-13267 T-46980969695680 I BROKER 0: (452)

Login by mbanks on batch.

(452) Login by mbanks on batch. 6980969695680 I BROKER 0: (4234)  
61 on Linux devlinux15 2.6.18-164.el5

#1 SMP Tue Aug 18 15:51:48 EDT 2009 x86\_64.

[2014/09/16@15:25:46.642-0400] P-13267 T-46980969695680 I BROKER 0: (15824)

Multi-tenancy enabled: 1

[2014/09/16@15:26:02.886-0400] P-14974 T-373326608 I PASOEADM5: (452) Login  
by mbanks on batch.

[2014/09/16@15:26:08.393-0400] P-15051 T-47803371640656 I ABL 6: (15914) Usr  
6 set tenant-id to 0, tenant-name to Default

# Progress OpenEdge Database

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- Trim the database log

`prolog database-name [ -online ]`

- Removes all but the most recent entries
- Online parameter allows truncating online database
- Back it up first if you want to save it!

## Progress OpenEdge Database – Windows Event Log

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- On windows, events can be written to windows event log
  - Event Level Environment Variable (EVTLEVEL)

*or*

- Event Level startup parameter (-evtlevel)
- Values: None, Brief, Normal, Full



# Progress OpenEdge Database – Troubleshooting

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- Look for words like:



# SQL Logging

## Connection Log

<dbdir>/SQL\_connection\_<serverid>\_<threadid>\_<date><time>.lg

## SQL Server Log

<dbdir>/SQL\_server\_<serverid>\_<date><time>.lg

- Turn on with special SQL statements

```
SET PRO_CONNECT LOG [ ON | OFF ] [ WITH ( { STATEMENT, QUERY_PLAN } ) ];
```

```
SET PRO_SERVER LOG [ ON | OFF ] [ WITH ( { STATEMENT, QUERY_PLAN } ) ];
```

- STATEMENT** (default) – dumps info about every client request for SQL statement
- QUERY\_PLAN** – additionally dumps query plan to log
- Log gets big fast!
- When log hits max, starts logging to alternate ‘...\_A.log’

33 years.

## Progress OpenEdge AppServer

AppServer  
Agent Log

<workpath>/<broker>.server.log

AppServer  
Broker Log

<workpath>/<broker>.broker.log

- Agent log has information about ABL execution
- Broker log has information about messages to/from the AppServer

# Progress OpenEdge AppServer – Configuration

<b>ubroker.properties</b>	<b>[Ubroker.AS]</b>
svrLogFile	Location and name of log file
svrLoggingLevel	0 - No log file written 1 - Error only 2 - Basic 3 - Verbose 4 - Extended
svrLogEntryTypes	4GLTrace, DB.Connects, DynObjects.DB, DynObjects.XML, DynObjects.Other, DynObjects.UI, FileID, QryInfo, ProEvents.UI.Char, ProEvents.UI.Command, ProEvents.Other, SAX, UBNNet  (See <i>OpenEdge Development: Debugging and Troubleshooting</i> )

# Progress OpenEdge AppServer

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## Reading Log Files

```
[08/04/04@11:41:31.334-040] P-001268 T-009968 2 AS AS  
[08/04/04@11:41:31.334-040] Application Server connected with connection id: 172.30.1.47: John Doe  
:asbroker1::3090::b0d80cae72::1191a17d1f0:-7ffc. (8358)  
[08/04/04@11:41:31.334-040] AS 4GLTRACE Run connectAuthSvc "-H localhost -S 6789" John Doe  
[08/04/04@11:41:31.334-040] [performCardAuth - authcard.p]  
[08/04/04@11:41:31.334-040] Name=John Doe;Number=1234567890;Type=Visa " [performCardAuth - authcard.p]  
[08/04/04@11:42:07.397-0400] P-001268 T-009968 2 AS 4GLTRACE Run disconnectAuthSvc "1000"  
[performCardAuth - authcard.p]  
[08/04/04@11:42:07.428-0400] P-001268 T-009968 2 AS AS Application Server disconnected. (8360)
```

# Progress OpenEdge AppServer – Diagnosing Problems

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## Startup Problems - `<brokername>.broker.log`

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```
[08/05/18@20:05:25.933-0400] P-000283 T-Main 1 --- --- /usr1/stat/progress/101c/wrk/asbroker1.broker.log opened.
[08/05/18@20:05:25.939-0400] P-000283 T-Main 1 --- --- Logging level set to =2
[08/05/18@20:05:25.940-0400] P-000283 T-Main 1 --- --- Log entry types activated:
    UBroker.Basic,[08/05/18@20:05:26.020-0400] P-000283 T-Main 2 UB Basic    ubroker version: v101c (07-May-08)
    (8038)
[08/05/18@20:05:26.314-0400] P-000283 T-L-9090 2 UB Basic    Started listenerthread: L-9090 (8043)
[08/05/18@20:05:26.394-0400] P-000283 T-L-9090 1 UB ----- Could not listen on port: 9090 (8044)
[08/05/18@20:05:26.394-0400] P-000283 T-L-9090 1 UB ----- java.net.BindException: Address already in use
    (errno:226)
[08/05/18@20:05:26.394-0400] P-000283 T-L-9090 1 UB ----- at java.net.PlainSocketImpl.socketBind(Native Method)
[08/05/18@20:05:26.394-0400] P-000283 T-L-9090 1 UB ----- at
    java.net.PlainSocketImpl.bind(PlainSocketImpl.java:359)
[08/05/18@20:05:26.394-0400] P-000283 T-L-9090 1 UB ----- at java.net.ServerSocket.bind(ServerSocket.java:325)
[08/05/18@20:05:26.394-0400] P-000283 T-L-9090 1 UB ----- at java.net.ServerSocket.<init>(ServerSocket.java:186)
```

# Progress OpenEdge AppServer – Diagnosing Problems

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## *ABL Application Problems - <brokername>.server.log*

[08/04/04@11:41:31.334-0400] P-001268 T-009968 2 AS AS Application Server connected with connection id: 172.30.1.47::asbroker1::3090::b0d80cae72::1191a17d1f0:-7ffc. (8358)

[08/04/04@11:41:31.334-0400] P-001268 T-009968 2 AS 4GLTRACE Run performCardAuth "John Doe 1234567890 Visa -H localhost -S 6789" [Main Block - authcard.p]

[08/04/04@11:41:31.334-0400] P-001268 T-009968 2 AS 4GLTRACE Run connectAuthSvc "-H localhost -S 6789 " [performCardAuth - authcard.p]

[08/04/04@11:41:31.350-0400] P-001268 T-009968 2 AS 4GLTRACE Run createAuthMsg "John Doe 1234567890 Visa " [performCardAuth - authcard.p]

[08/04/04@11:41:31.350-0400] P-001268 T-009968 2 AS 4GLTRACE Run sendAuthMsg "1000 Name=John Doe;Number=1234567890;Type=Visa " [performCardAuth - authcard.p]

[08/04/04@11:42:07.397-0400] P-001268 T-009968 2 AS 4GLTRACE Run disconnectAuthSvc "1000" [performCardAuth - authcard.p]

[08/04/04@11:42:07.428-0400] P-001268 T-009968 2 AS AS Application Server disconnected. (8360)



# WebSpeed

WebSpeed Agent Log	<workpath>/<broker>.server.log
WebSpeed Broker Log	<workpath>/<broker>.broker.log
Messenger Log	<workpath>/msgr.log

- Agent and Broker logs are essentially the same as the AppServer
- Messenger log has start and end of the request, and the values of the CONTENT\_LENGTH, PATH\_INFO, and QUERY\_STRING variables, and environment variables.

# WebSpeed Messenger – Configuration

<b>ubroker.properties</b>	<b>[WebSpeed.Messengers]</b>
logFile	Location and name of log file
loggingLevel	0 - No log file written 1 - Error only 2 - Basic 3 - Verbose 4 - Extended
logEntryTypes	MsgrTrace, BrkrMsgr, AgntMsgr, BrkrConDisc, MsgrAll  (See <i>OpenEdge Development: Debugging and Troubleshooting</i> )

## WebSpeed – Troubleshooting

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- Agent and broker issue debugging similar to AppServer
- Typically, server log first
- Messenger log for request variables

# Progress OpenEdge NameServer

Name Server  
Log

<workpath>/<instance>.ns.log

- Start and stop
- Load balancing status
- Register and unregister of brokers
- Client requests (log level 3)
- Communication between name server and brokers

# Progress OpenEdge NameServer – Configuration

<b>ubroker.properties</b>	<b>[NameServer]</b>
svrLogFile	Location and name of log file
loggingLevel	0 - No log file written 1 - Error only 2 - Basic 3 - Verbose 4 - Extended
logEntryTypes	NSPlumbing  (See <b><i>OpenEdge Development: Debugging and Troubleshooting</i></b> )

# Progress OpenEdge AdminServer

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Admin Server  
Log

<workpath>/admserv.log

- Start and stop
- Communication status

# Progress OpenEdge AdminServer

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- Increase the logging level by adding  
`-DLogLevel=5`  
in AdminServerPlugin.properties file under AdminServer  
plugin section

140,000 organizations.



# Apache Tomcat Logging

Console Log Server Log	<code>&lt;tomcat&gt;/logs/catalina.out</code> <code>&lt;tomcat&gt;/logs/catalina.&lt;date&gt;.log</code>
Access Log	<code>&lt;tomcat&gt;/logs/&lt;host&gt;_access_log.&lt;date&gt;.txt</code>
Manager Logs	<code>&lt;tomcat&gt;/logs/host-manager.&lt;date&gt;.log</code> <code>&lt;tomcat&gt;/logs/manager.&lt;date&gt;.log</code>

`<tomcat>/conf/logging.properties`



# REST Adapter

## Rest Adapter Log

<tomcat>/webapps/<service>/WEB-INF/adapters/logs/<service>.log

- Parameters passed as part of request
- Response parameters
- Procedures invoked
  
- Also need to check
  - <restbroker>.broker.log
  - <restbroker>.server.log

# REST Adapter – Configuration

---

- In `WEB-INF/adapters/runtime.props`
  - `serviceLoggingLevel` (4 is highest, 2 is default)
  - `serviceFaultLevel` (4 is highest, 2 is default)
  - `serviceLogEntryTypes` (uses OpenClient `logEntryTypes`)
- In `/webapps/<service>/WEB-INF/classes/log4j.properties`
  - Logging level defaults to ERROR
  - Can change to INFO, DEBUG, TRACE

```
Log4j.Logger.com.progress.rest.security=DEBUG, <service>
```

# REST Adapter – Logging for Remote Deployment and Administrative Tasks

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## ■ **admserv.log**

- If you deploy/ edit or view a property using OEE/OEM or restman, the request goes through AdminServer.

## ■ **oerm.log**

- The REST Management Agent does the deployment in the web container
- You can dynamically increase the loggingLevel of the REST Management agent instance using OEM or restman to get more logging

## ■ **Tomcat logs**

- catalina.log, localhost.log, host-manager.log, localhost\_access\_log.txt

# Web Services Adapter (WSA)

WSA Log

`<workpath>/<service>.wsa.log`

- Properties
- Broker client conversation
- SOAP request/response
- SOAP faults

# Web Services Adapter – Configuration

<b>ubroker.properties</b>	<b>[WSA]</b>
logFile	Location and name of log file
loggingLevel	0 - No log file written 1 - Error only 2 - Basic 3 - Verbose 4 - Extended
logEntryTypes	4GLProvider, AdminProvider, BrokerClient, DynamicApi, MsgDebug, PoolMgmt, Properties, PoolMgmt, RunProcs, SessionPool, SOAPProc, WSA, WSAObject, WSAObjPool, WSDLDoc, WSADefault
logMsgThreshold	Limit of SOAP info in log. Value of -1 is no limit. Positive number specifies number of characters

# Web Services Adapter (WSA) – Troubleshooting

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- At startup, adapter writes WSA ID in log file  
ID 2bbafbc35852308b:7a8a02:f18e8ee918:-8000
- At first request, WSA assigns request ID to session (included in log messages)  
(reqid:reqid-value)
- When the WSA returns a SOAP fault
  - Includes request ID of the Web service
  - Also WSA ID  
wsaid-value#reqid-value
- Use the WSA ID to find the right log file
- Use the request ID to search for entries that contain the "(reqid:reqid-value)"

# AppServer Internet Adapter (AIA)

AIA Log

<workpath>/<instance>.aia.log

- Version information
- Connection pool information
- Instance properties
- GET and POST commands sent by the client
- Response back to the client
- Broker communication (even binary dump with log level 3)



# AppServer Internet Adapter (AIA) – Configuration

ubroker.properties	[AIA]
logFile	Location and name of log file
loggingLevel	0 - No log file written 1 - Error only 2 - Basic 3 - Verbose 4 - Extended
logEntryTypes	AiaMgmt, AiaProp, AiaRqst, AiaUBroker, AiaDefault  (See <b><i>OpenEdge Development: Debugging and Troubleshooting</i></b> )

# AppServer Internet Adapter (AIA) – Troubleshooting

---

```
2 AIA AiaMgmt AIA_HTTPS is licensed in this configuration.
2 AIA AiaRqst Start: doGet()
2 AIA AiaRqst Requested URL: http://pcspot/aia/Aia
2 AIA AiaRqst Request information:
2 AIA AiaRqst Request method : HEAD
3 AIA AiaUBroker readMsg()
3 AIA AiaUBroker mark() : markpos=0
3 AIA AiaUBroker readubhdr
3 AIA AiaUBroker appUserid=
3 AIA AiaUBroker arbString=
3 AIA AiaUBroker appService= asbroker1
2 AIA AiaUBroker processConnect() urlhttp://localhost:5162/asbroker1
3 AIA AiaUBroker [SC-000001] nameserverLookup() : brokerhost= 172.16.108.180
brokerport= 3090
3 AIA AiaUBroker [SC-000001] wrote UBRQ_CONNECT to (172.16.108.180:3090)
```

# Client Logging

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- Write error and warning messages to the specified log file.

```
pro -clientlog <logname> -logentrytypes <types> -logginglevel <level>
```

- You can use the MESSAGE statement with the VIEW-AS ALERT-BOX option to write application specific information to the screen and the log file

## Example:

```
prowin32.exe -clientlog mylog.lg -logginglevel 2 -logentrytypes 4GLTrace
```

(See *OpenEdge Development: Debugging and Troubleshooting*)

180 countries.

# Progress OpenEdge Business Process Management

BPM Server	<code>oebpm/jboss/server/ejbServer/log/boot.log</code> <code>oebpm/jboss/server/ejbServer/log/server.log</code>
BPM Portal	<code>oebpm/jboss/server/portalServer/log/boot.log</code> <code>oebpm/jboss/server/portalServer/log/server.log</code>
BPM Application	<code>oebpm/server/logs/bpmportal.log</code> <code>oebpm/server/logs/bpserver.log</code> <code>oebpm/server/logs/oebps.log</code> <code>oebpm/server/logs/bpmprocessstore.log</code>
Application	<code>oebpm\server\ebmsapps\<application&gt;\logs\<activity&gt;.log< code=""></application&gt;\logs\<activity&gt;.log<></code>

# Progress OpenEdge Business Process Management – Configuration

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- Uses log4j
- Configuration files for logging is oebpm\server\conf\oebpslog.conf
  - level
  - file size
- Most appenders are set to “info” by default  
`log4j.rootCategory=debug,OEBPS`

# Progress OpenEdge Business Process Management – Troubleshooting

---

## ■ **Server Startup**

- Look at logs in jboss folder

## ■ **Application Failures**

- Look at logs in oebpm/server /logs
- Important files are oebps.log , bpmportal.log, bpmprocessstore.log, bpserver.log

## ■ **Managed Adapter Failures**

- Look at oebpm/server/ebmsapps/<application>/logs/<activity>.log

# Progress Pacific AppServer for OpenEdge

Session  
Manager Log

<catalina>/<instance>/logs/<application>.<date>.log

Agent Log

<catalina>/<instance>/logs/<application>.agent.log

- Content/Debugging Similar to Classic AppServer
  - <instance>.<date>.log is much like the broker log
  - <instance>.agent.log is is much like the server log



# Progress Pacific AppServer for OpenEdge

---

- `<instancedir>/webapps/<instancename>/WEB-INF/logging.xml`

- Uses slf4j

- Default is WARN

```
<root level="WARN">  
  <appender-ref ref="SIFT" />  
</root>
```

- Can be overridden by logger entries (list of possible values is in the logging.xml)

- Example

```
<logger name="com.progress.appserv.Session" level="INFO"/>
```

- Possible levels

- TRACE, DEBUG, INFO, WARN and ERROR

Tools

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# LOG-MANAGER System Handle

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- Limited set of capabilities to access the logging settings for the current ABL runtime session

## LOG-MANAGER [ :attribute | :method ]

ENTRY-TYPES-LIST	HANDLE	INSTANTIATING-PROCEDURE
LOG-ENTRY-TYPES	LOGFILE-NAME	LOGGING-LEVEL
LOG-THRESHOLD	NUM-LOG-FILES	TYPE

CLEAR-LOG()	CLOSE-LOG()	WRITE-MESSAGE()
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```
LOG-MANAGER:WRITE-MESSAGE("Got here, x=" + STRING(x), "DEBUG1").
```

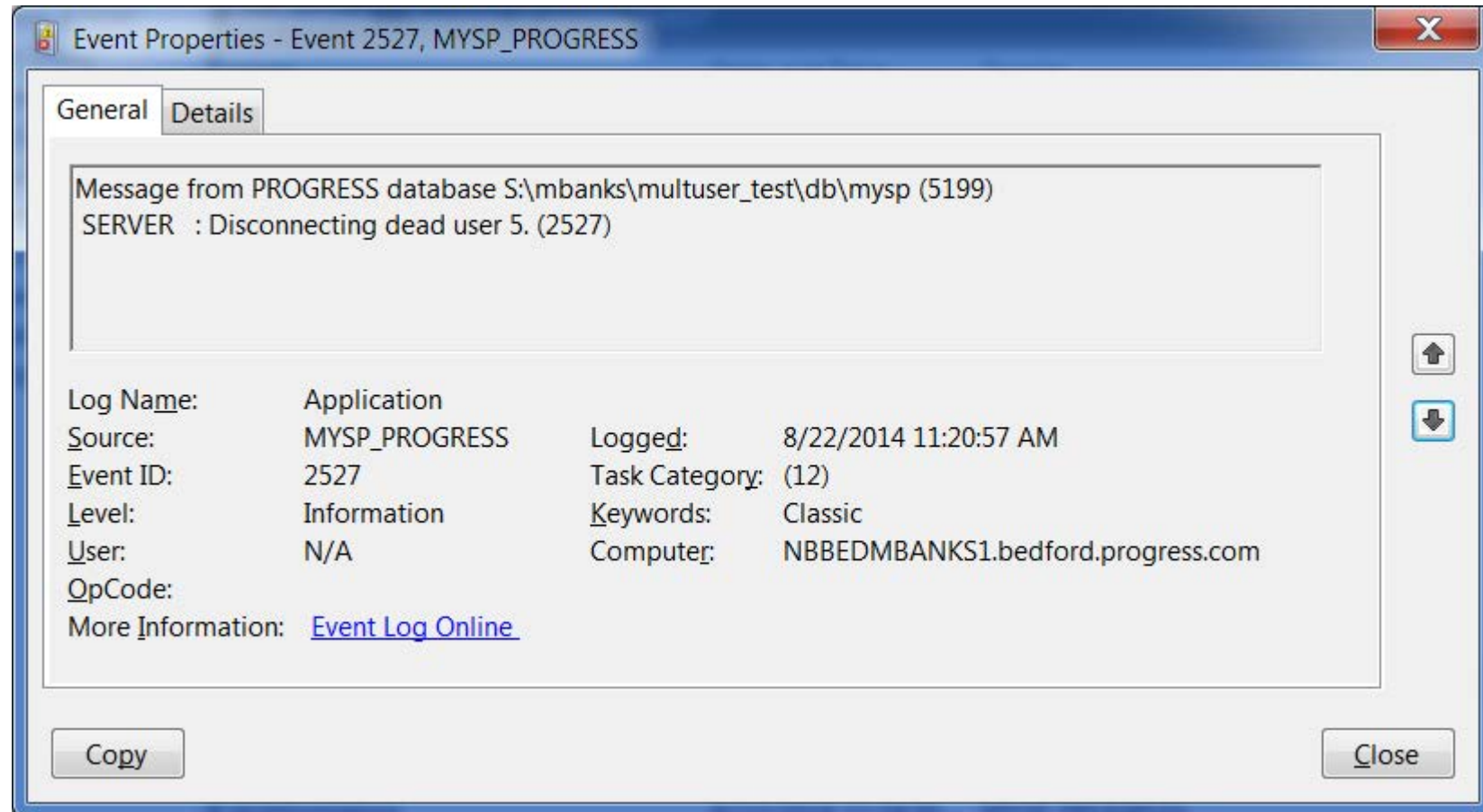
# Progress OpenEdge Management

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- Manage logging properties
- Create a log file monitor
  - Monitor local and remote log files
  - Monitoring Plans
    - Schedules
    - Rules (search criteria, severity)
    - Alerts
    - Some predefined plans for OpenEdge products

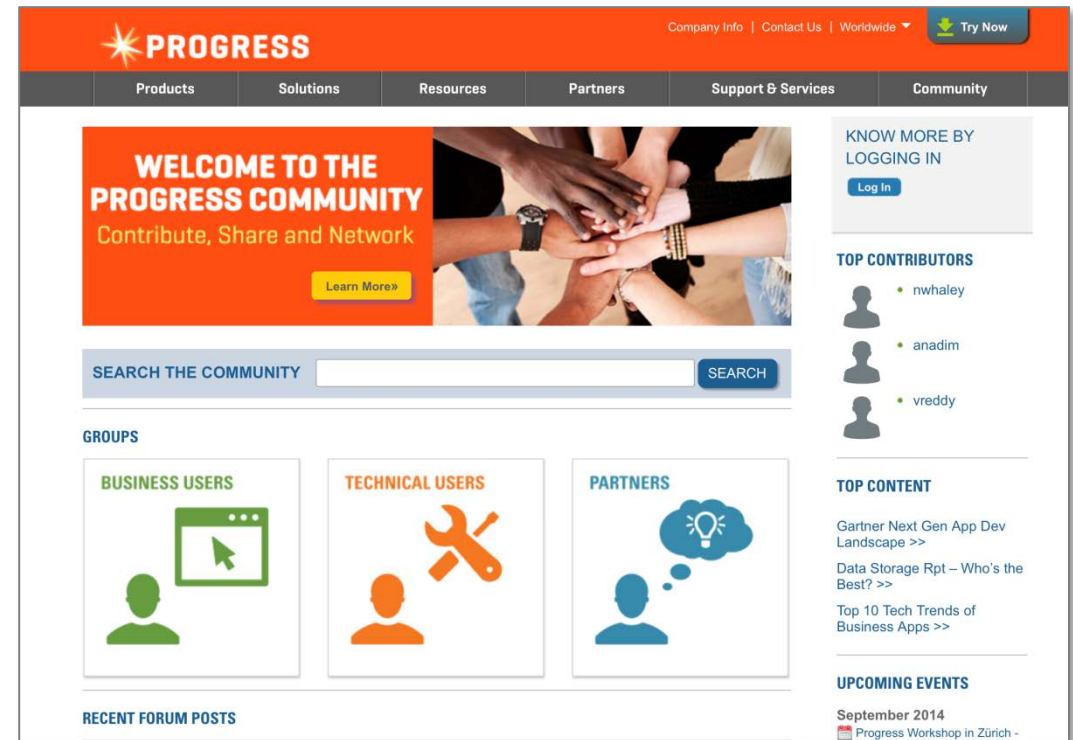
# Windows Event Viewer

- Database events written to Windows Event Log in addition to log file
- Use Windows Event Viewer



# LogRead

- Log files (can) produce a lot of data
  - Not always easy to read
- GUI utility for log files
  - View, manipulate, filter, sort
  - merge & translate
- ABL (source available)
- Extensible: Add custom handlers
- Unsupported



# Conclusions

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- Debugging issues may involve multiple log files
  - Example: BPM Server, AppServer, Database
- Increasing log levels may hurt performance
- Increasing log levels may make logs grow very large
- Increasing log levels may make it hard to find what is important
- Logging level too low may make it hard to debug problems

# Want to Learn More About Progress OpenEdge 11?

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- **Role-based learning** paths are available for OpenEdge 11
- Each course is available **as Instructor-led training or eLearning**



## **Instructor-led training:**

\$500 per student per day

[www.progress.com/support-and-services/education/instructor-led-training](http://www.progress.com/support-and-services/education/instructor-led-training)



## **eLearning:**

Via the Progress Education Community ([wbt.progress.com](http://wbt.progress.com)):

### **OpenEdge Developer Catalog:**

\$1,500 per user per year

### **OpenEdge Administrator**

**Catalog:** \$900 per user per year



## **User Assistance Videos:**

[www.progress.com/products/pacific/help/openedge](http://www.progress.com/products/pacific/help/openedge)



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