



Net Release Notes - Highway 3.0

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## Document Control

### Issue Control

<b>Issue</b>	<b>Date</b>	<b>Changes Made</b>
1.0		Highway changes between 2.15 and 3.0

### Cross Reference

### Change Summary

<b>Nr.</b>	<b>Description</b>	<b>Date</b>	<b>By whom</b>
1.0	Initial Document	Jun 17 2008	Peter Evans

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## Introduction

This document contains information on the changes between Highway 2.15 and Highway 3.0.

## Highway Enhancements

Highway version is 3.0.

### Enhancements/Fixes

1. Default "JMS\_KEEP\_ALIVE\_WRITER" to "YES".
2. Fix issue with acknowledging a read message - "Can not do read acknowledgement "XXX" on endpoint "YYY".".
3. Lengthen SettingValue and Suggested value fields on the Settings table:  
 ALTER table Setting alter column SettingValue VARCHAR(200)  
 ALTER table Setting alter column ValidValues VARCHAR(100)
4. Allow JMS persistence in OpenEdge or MS SQL Server 2005 databases.
5. Add additional debug information to the FTP reader classes. Add additional debug information to the JBoss startup scheduler.
6. Modified the event logger so that each event has a unique id. Also has a more appropriate category associated with the event.
7. Notifications can now be defined at an event id level if necessary.  
 This is done using settings like such as  
 "NOTIFY\_1001"  
 "NOTIFY\_ERROR\_JMS\_READER"  
 "NOTIFY\_JMS\_READER"  
 "NOTIFY\_ERROR"  
 and setting the value to the notify e-mail address.
8. Schema has been modified so it can be used in a Progress OpenEdge database.  
 highway.db.driver=com.ddtek.jdbc.openedge.OpenEdgeDriver

```
highway.db.url=jdbc:datadirect:openedge://PSLPC347:60701;databaseName=xttrax;
DefaultSchema=pub
highway.db.user=sysprogress
highway.db.pass=sysprogress
```

```
Schema has been modified so it can be used in a MS SQL 2005 database.
highway.db.driver=com.microsoft.sqlserver.jdbc.SQLServerDriver
highway.db.url=jdbc:sqlserver://cslnt20:1433;DatabaseName=xttraxntsql60edu
highway.db.user=QCONFIG
highway.db.pass=Precision
(NOTE, for MS SQL the TIMESTAMP datatype should be replaced with the
DATETIME datatype. This affects the HW_EVENTLOG table.)
```

Highway logic has been modified so Highway database can reside in an Oracle instance.

```
highway.db.type=oracle
highway.db.driver=oracle.jdbc.driver.OracleDriver
highway.db.url=jdbc:oracle:thin:@cslnt20:1521:itrax
highway.db.user=trax
highway.db.pass=trax
```

9. Redefine property key fields as editable drop down lists; Allows one to pull standard properties from drop down list but also type in their own.

10. Install now allows one to:

- \* Install only Highway.
- \* Install only ActiveX components which may have been removed as a result of un-installing an old iTRAX/Highway.
- \* Configure JBoss to use alternative to HSQL database for JMS persistence.
- \* Detail what ports to be used.

11. FolderReder

\* Can configure the folder reader to scan for a control file and once found it will try to read the actual file. A new server property "input.ctr" can be set to something like "yes,ctrl.xml" or "ctrl.xml". This will make the reader scan for ".ctrl" files and when it finds one read the same named file with a ".xml" extension. Both the control file and the actual file will then be deleted.

12. FTPS Functionality

Added the ability to send and receive messages in Highway via FTPS.

\*To enable FTPS set the FTP server property "encryption.type" to "FTPS". If this is not set then there will be no change in behaviour.

\*If FTPS is enabled then the FTP server property "server.cert" must be set to the name of the Highway Key Store containing the location of the Server's Certificate.

\*If the server requires Client validation then the FTP server property "client.cert" must be set to the name of the Highway Key Store containing the location of the Client's Certificate.

13. WebSphere MQ Functionality

\* Introduced the server property "server.queuemanager.name". This corresponds to the WebSphere Queue Manager Name. If this property doesn't exist then the Server's Id is used instead.

\* Message Id can now be set from MQ MessageId attribute.

14. Java5

\* Highway has been ported to Java5. It is compiled with the Java5 compiler and no longer works with Java 1.4.

\* Removed unused classes and images. Highway ear is now smaller in size.

15. MQ Reader

\* Can now control polling interval through use of server property "polling.pause".

\* Fix issue with Highway being unable to read messages off a remote/clustered MQ.

16. AS/400 Dataqueue Reader

\* Fix issue with AS/400 dataqueue reader where an empty queue is interpreted as blank messages.

17. HTTP Reader (SubmitMessage)

- \* Introduced a new SubmitPayloadMessage suite of servlets.
- \* Fix UTF-8 issue with response from SubmitMessage requests.

18. Allow string message properties to be set

\* Updated each reader (JmsReader, MailReader, DataQueueReader, WebSphereMqReader, HttpReader, FtpReader, FolderReader) to invoke new method `com.precisionsoftware.messaging.MessageDetail.putStringProperties` (Server server) which dynamically sets any string message property starting with `MSGPROP` onto the message being put onto a queue.

19. Allow string message property `ApplIdentity` to be read

\* `WSMqConnection` can now set `ApplIdentity` message property so as any outgoing message which has this property set will also have it set on outbound messages

20. Default `CorrelId` to `MessageId` if NULL

\* If `correlId` is null it now defaults to `messageId` on response messages so as an association between inbound & outbound messages is kept.

21. Schema has been modified:

- \* `HW_PAYLOAD` alter column `FORMAT` rename TO `PAYLOADFORMAT`

22. Support added for FTP proxies. New FTP server properties can be set:

- `socks.proxy.port`
- `socks.proxy.server`
- `socks.proxy.user`
- `socks.proxy.password`

23. "Persistence" attribute in MQMD Message can now be set using the "`MSGPROP:`" property set on the reader.

24. The MQ reader now time stamps outgoing messages using `PutTime` with the current time.

25. The MQ reader can now be configured to pause after reading each message to allow some message throttle. The server property "`message.pause`" can be used to specify the delay in milliseconds.

26. Allow one to specify the character encoding to be used by Tomcat. New Highway setting "`HTTP_DEFAULT_ENCODING`" can be set to code page, e.g. "`UTF-8`" or "`*DISABLE`" to use default code page.

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28. Connection Pool has being modified to use Apache DbcP connection pool (org.apache.commons.dbcp) instead of jdbcpool (com.bitmechanic.sql)  
- Highway Properties file now includes two new settings to facilitate this:  
highway.db.minidle - this is set to zero - meaning there should be zero idle connections before new connections are started in the connection pool  
highway.db.maxconn - this is set to ten - meaning the connection pool should contain a maximum of 10 connections.

- The following Highway properties have been deprecated:
  - highway.db.jdbc.monitor
  - highway.db.jdbc.monitor.testtimes
  - highway.db.jdbc.monitor.maxidletime

29. JmsReader is now configured to also use Apache DbcP connection pool from ConnectionManager and SimpleConnectionManager is now not required

30. Added new Highway Settings element: DATABASE\_DRIVER. This allows for the jms queue's driver to be specified and used when creating connections  
- Otherwise it will default to checking what type of database is being used & hence driver.

31. If database is not HSQL then don't allow one to stop the database from the Highway console.

32. Added new Highway Settings element: DEADBACKUP. This allows for a backup cache to be setup & configured which will store any failed messages for later retrieval  
- A message will fail if it's local endpoint destination and dead queue are both inaccessible.  
- This cache allows for these messages to be stored rather than lost.

33. When both the local endpoint destination & dead queue are inaccessible the write() method starts to slow down until they are back up  
- New Highway Settings element: SLEEP\_INTERVAL allows for the starting sleep time to be set - otherwise it will default to 10 secs  
- New Highway Settings element: SLEEP\_MAX allows for the max sleep time to be set - otherwise it will default to 15 mins  
- The write message will incrementally slow down to SLEEP\_MAX until either the local endpoint destination or the dead queue comes back online.

34. Created a JCS Cache to hold data records rather than retrieve them from the database each time  
- New Highway Settings element: USE\_CACHE allows for the cache to be turned off (defaults to ON)  
- Setup for Endpoint, Rule, Server & Setting records  
- If record does not exist in database, mechanism in place to stop it checking both database & cache each time it is requested  
- The cache is cleared each time Highway is started & stopped

### 35. JMS Reader

Under certain circumstances the JMS readers in Highway keep a track of the last destination a message is written to. When a new message is read and the destination is the same as the last message read then the last used writer component is used rather than creating a new one. This is done for performance reasons. Unfortunately when the queues migrate over from one node to the other in a clustered environment the last used information becomes invalid but is not flushed or discarded.

### 36. Endpoint Monitor

When Highway is started, a monitor thread is run which monitors the various endpoints in the system. When there is an interrupt in the queues this monitor fails to reconnect to the SYSTEM queue on the other server so Highway's ability to monitor is affected. The process will continue to complain until Highway is stopped and restarted from the console page. Fix bug to clear out cached writer object when queues go down and restart. Also ensure monitor threads clear and reconnect to the System queue when the queues go down and restart.

### 37. Data Caching

Message rule cache is now used when processing a message and determining where a received message should be written to.

### 38. FTP

The FTP writer now always quits the FTP connection if it encounters an error.

### 39. FTP/Folder Reader

Added a new server property - "reader.pause"; allows one to add a delay between discovering a file in a folder or FTP server and actually trying to read it.