

## Previs Inc. - OPsCon Release Notes

Item	E/B	Description
<b>OPsCon Version 5.8.0 – Release Date – November 6, 2014</b>		
1	E	Support is added for <b>GE Proficy iFIX Version 5.8</b> . GE Proficy iFIX version support at this OPsCon version includes: <ul style="list-style-type: none"> <li>• GE Proficy iFIX version 4.0</li> <li>• GE Proficy iFIX version 4.5</li> <li>• GE Proficy iFIX version 5.0</li> <li>• GE Proficy iFIX version 5.1</li> <li>• GE Proficy iFIX version 5.5</li> <li>• GE Proficy iFIX version 5.8</li> </ul> Support for FIX32 v7.0 and older versions of iFIX are available upon request only.
2	E	Support is added for <b>Microsoft Windows 7 Professional 64 bit</b> . Confirmed operating system support at this version include: <ul style="list-style-type: none"> <li>• Microsoft Windows 7 Professional 64 bit latest SP</li> <li>• Microsoft Windows 7 Professional 32 bit latest SP</li> <li>• Microsoft 2008 Server 32 bit latest SP</li> <li>• Microsoft Windows XP Professional 32 bit SP3 (support for versions prior to SP3 terminated)</li> <li>• Microsoft 2003 Server 32 bit SP2 (support for versions prior to SP2 terminated)</li> </ul>
3	B	Resolve issue at CLU which impacted CLU ability to open CFG files larger than 10,000 blocks, and print the CFG files in LST format.
<b>OPsCon Version 5.5.0 – Release Date – November 27, 2012</b>		
1	E	Support is added for <b>GE Proficy iFIX Version 5.5</b> . GE Proficy iFIX version support at this OPsCon version includes: <ul style="list-style-type: none"> <li>• GE Proficy iFIX version 4.0</li> <li>• GE Proficy iFIX version 4.5</li> <li>• GE Proficy iFIX version 5.0</li> <li>• GE Proficy iFIX version 5.1</li> <li>• GE Proficy iFIX version 5.5</li> </ul> Support for FIX32 v7.0 and older versions of iFIX are available upon request only.
2	B	In previous versions, when editing RMS type tag in iFIX database manager user will occasionally experience database manager crash with message about “ <i>rms.gov file not found</i> ”. The tag being edited then goes off scan in iFIX. This is a bug and it has been located and resolved at this release. RMS tags can now be edited without these issues.
3	B	In previous versions from approximately version 3.6.15, the DAA block will occasionally not send an alarm message to Alarm Summary. This issue is resolved.
<b>OPsCon Version 5.1.5 – Release Date – August 3, 2012</b>		
1	B	For Function Code FC45 previously the DIGITAL (BDI) block displayed the wrong (inverted) value in the iFIX Alarm History for an alarm. This problem was introduced in error in 2009, and affected only the alarm history, and not the on screen display of alarm value. This problem has been resolved for FC45. Investigation revealed this problem also present for FC62, FC224 and FC225, and these have been resolved also.
2	E	Support for iFIX v4.0 has been added back into OPsCon. However, OPsCon for iFIX v4.0 will not support FC194, FC222, FC223, FC224 or FC225. If support for those types is required, then iFIX and version 4.5 or above must be installed.
<b>OPsCon Version 5.1.4 – Release Date – February 27, 2012</b>		
1	B	Issues has been reported from one site (ONLY !!) that tags occasionally “lose connection” to DCS (i.e. exceptions stop passing through to PDB. Previs attended on site to this site, to investigate the cause of this issue. Problem was replicated at some, but not all, restarts. Conditions for this fault are unique to this site, and will be evidenced by (a) failure to be able to control some tags after a period of time (they may work at first); (b) updates/exceptions stop arriving for some but not all tags (c) Configuration LAST ERROR field for the tags that have stopped working reads Error # 38. To resolve this issue, the startup sequence is modified for all SCSI channels (MCP02, INICT03, INICT13).

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2	B	Previously, when driver connects via TELNET to Previs Bailey DCS Simulator, and the target IP address or Bailey DCS Simulator can not be located, the CIUDRV rapidly consumed memory to the point where the computer hosting OPsCon would need to be restarted. Problem resolved.
3	B	For BRC controllers, the maximum block address has been changed from 30,000 to 31,998 to match controller behavior. This does not affect the domain of acceptable tag indices which remains (1 to 30,000).
4	B	CLU Fault corrected, so that CLU no longer faults when attempting to save CFG file in LST format for limited subset of CFG files.
5	B	Application error log no longer generates non-critical Error 525.
6	B	End user reports that for FC45, when an alarm first arrives it DOES show correctly at the Alarm Summary (see issue resolved this year), but at the alarm log the incorrect alarm state is shown when the alarm first appears. At engineering investigation it is decided that the log values are correct.
<b>OPsCon Version 5.1.3 – Release Date – November 12, 2011</b>		
1	B	Resolve problem with FC194 – User Defined Data Export. Previously did not request adequate buffer space at CIU. Resolved and now supports maximum length strings.
2	B	Resolve minor issue with Harmony IO function codes FC222, FC223, FC224, and FC225.
<b>OPsCon Version 5.1.2 – Release Date – September 15, 2011</b>		
1	B	Previously, the AlarmAckSync.EXE application, when started from iFIX SCU task list, would not exit memory when iFIX exits. This problem is now resolved, and AlarmAckSync.EXE will now exit when iFIX exits.
2	E	PConsole (at version 5.1.1) screen FLOAT function is modified to work with iFIX terminal server.
<b>OPsCon Version 5.1.1 – Release Date – August 18, 2011</b>		
1	B	Previously, at version 5.1.0 (and not before), the driver component of OPsCon (CIUDRV.EXE) would fault at attempt to delete a tag while executing as service under Windows 7/2008. This issue is resolved.
<b>OPsCon Version 5.1.0 – Release Date – July 14, 2011</b>		
1	E	Support is added for <b>Microsoft Windows 7 Professional 32 bit</b> and <b>Microsoft 2008 Server 32 bit</b> , while support for Windows 2000 is discontinued. Operating system support at this version include: <ul style="list-style-type: none"> <li>• Microsoft Windows 7 Professional 32 bit latest SP</li> <li>• Microsoft 2008 Server 32 bit latest SP</li> <li>• Microsoft Windows XP Professional 32 bit SP3 (support for versions prior to SP3 terminated)</li> <li>• Microsoft 2003 Server 32 bit SP2 (support for versions prior to SP2 terminated)</li> </ul>
2	E	Support is added for <b>GE Proficy iFIX Version 5.1</b> , while support for GE Proficy iFIX Versions 3.0, 3.5 and 4.0 is discontinued except by special request. GE Proficy iFIX version support at this OPsCon version includes: <ul style="list-style-type: none"> <li>• GE Proficy iFIX version 4.5</li> <li>• GE Proficy iFIX version 5.0</li> <li>• GE Proficy iFIX version 5.1</li> </ul> Support for FIX32 v7.0 and older versions of iFIX is available upon request only.
3	E	Support is added for <b>ABB/Bailey Function Code FC194 – User Defined Data Export</b> . This support includes all data communications, as added at OPsCon v3.6.17, as well as a new UDE block with the iFIX database.
4	E	Support is added for the following ABB/Bailey Function Codes, all of which are used to perform field IO in ABB Harmony systems: <ul style="list-style-type: none"> <li>• FC222 - Analog In/Channel (HAI block added to OPsCon)</li> <li>• FC223 - Analog Out/Channel (HAO block added to iFIX)</li> <li>• FC224 - Digital In/Channel (HDI block added to iFIX)</li> <li>• FC225 - Digital Out/Channel (HDO block added to iFIX)</li> </ul> NOTE: Tuning of these blocks from CLU and ActiveX tuning control is not supported.
5	E	Support is added for iFIX electronic e-signature for all blocks, which allows for digital signing of control actions in plants where a high regulatory records requirement exists.
6	E	Additional software utility <b>AlarmAckSync.exe</b> has been added to the OPsCon build, for use with iFIX version 5.0 and 5.1, and subsequent versions. The purpose of AlarmAckSync.exe is to support sharing of alarm ACK events from one iFIX SCADA Server to another iFIX SCADA Server, such that alarm ACK status is maintained the same on backup SCADA Server as it is on active SCADA Server. This is required for iFIX versions 5.0 and 5.1 as a result of changes in the iFIX failover model implemented by GE.

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7	E	Console Autoport is modified to support auto mapping of illegal special characters in tag names to legal characters. A mapping table is included within Console Autoport for this purpose. Special characters in tag names that are supported by iFIX include: <ul style="list-style-type: none"> <li>in PDB tag names: _-!#%\$&amp;^&lt;&gt;</li> <li>in Tag Group files: _-!#%\$&amp; (note that ^&lt;&gt; are illegal characters in tag group files)</li> </ul>
8	E	CIU data communications speed is improved for installations in which OPsCon is connected to the Previs Bailey DCS Simulator via TELNET.
9	B	Spurious issue at various iFIX blocks affecting display of CV data at iFIX Alarm Summary is resolved. This issue caused blank CV entry at Alarm Summary until next data refresh (i.e. at next exception or at Alarm ACK), AND that the issue also causes '????' to be displayed at CV field on any display connected to this tag during same interval (i.e. when issue clears at Alarm Summary it also clears the '????'). This issue was statistical in nature and does not happen at all alarms for all tag types. This issue had no effect on control actions. Resolution for this issue is released for iFIX v4.5, v5.0 and v5.1.
10	B	Communications issue which prevented INICI12/INICT12 data communications is resolved, and INICT12 configuration data is added to the Technical Manual - Bailey DCS Connections
11	Note	Support for the Loop Tuner and Block (Tag) Viewer utilities, included with previous OPsCon versions, is withdrawn, and these utilities are removed from the SETUP.EXE and will not longer be installed or supported. Users needing such functionality are encouraged to review the CLU utility.
<b>OPsCon Version 3.6.17 - Release Date – October 15, 2010</b>		
1	E	Support is added to driver and OPC server for function code FC194 – User Defined Data Export block type. This brings the FC194 data to the OPC DA interface and the OPC Alarms & Events interface, but does not yet bring FC194 data into iFIX. Changes are made to the Configurator, CLU, Console AutoPort in support of this change. Further change will be made at a subsequent 2010 release to add support in iFIX for FC194.
<b>OPsCon Version 3.6.16 - Release Date – July 7, 2009</b>		
1	E	Support is added for iFIX v5.0. OPsCon presently supports: iFIX v3.0, v3.5, v4.0, v4.5, v5.0. Support for FIX32 v7.0 and older versions of iFIX is available upon request only.  <i><b>CAUTION:</b> OPsCon must not be used together with the enhanced failover option introduced at iFIX v5.0. This feature is not suitable for use in Bailey DCS operator console. At iFIX v5.0 you must ensure that this feature is NOT installed and NOT enabled.</i>
2	E	Add support to ENABLE/DISABLE alarms for individual tags at the OPC Alarm and Events interface. Key features of this support are: <ul style="list-style-type: none"> <li>Alarm at A&amp;E interface for given tag now inhibited IF (a) feature enabled at <i>BaileyOPCServer.ini</i> file and (b) inhibit value for inhibit source tag is TRUE (see Configurator Users Manual, OPC Interface Manual, Process Database Quick Reference Manual)</li> <li>Add InhibitValue field at OPC DA and AE interface to reveal if alarm inhibited (1) or not (0)</li> <li>Add Inhibit_CFG field to OPC DA and AE interface to reveal logic for alarm inhibit at AE interface</li> </ul>
3	B	Security Areas have been added to RMS loadable block
<b>OPsCon Version 3.6.15 - Release Date – July 22, 2008</b>		
1	E	Support is added for iFIX v4.5. OPsCon presently supports: iFIX v3.0, v3.5, v4.0, v4.5. Support for FIX32 v7.0 and older versions of iFIX is available upon request only.
2	E	Support added within CLU and other tools for late model Harmony function codes.
3	E	Product completely rebuilt within latest Microsoft compiler environment as prelude to support for Microsoft Vista in 2009 and support for Microsoft 2008 Server upon first request.
<b>OPsCon Version 3.6.14 - Release Date – May 22, 2008</b>		
1	E	Alarm and Event Interface event attributes for each category modified to ensure that: <ol style="list-style-type: none"> <li>Any attribute that exists in more than one category will have the same attribute ID number for each category in which this attribute exists (e.g. Descriptions will always have the same ID number).</li> <li>Any attribute that is not shared will have a unique attribute ID number that no other attribute uses.</li> </ol>
2	E	The Alarm and Event Test client provided with the OPsCon A&E server is modified to display all attributes with attribute ID for each category.

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<b>OPsCon Version 3.6.13 - Release Date – May 13, 2008</b>		
1	B	Resolve issue that prevented driver connection with INICT01 and earlier devices, and some early model INICT03 CIU. This problem was introduced at version 3.6.12 and would not affect other versions, and will not affect late model INICT03A or INICT13A CIU.
<b>OPsCon Version 3.6.12 - Release Date – May 6, 2008</b>		
1	E	Support is added for firmware versions G0 and above for protocol communications (both serial RS-232 and SCSI) to INICT03(A) type CIU. OPsCon, and the OPC server within OPsCon, now supports the following firmware versions on the INICT03(A): <ul style="list-style-type: none"> <li>▪ Supports firmware versions up to and including E0</li> <li>▪ Does not support firmware versions F0, F1</li> <li>▪ Supports firmware versions G0, G1 and subsequent</li> </ul>
2	E	Support is added for protocol communications (both serial RS-232 and SCSI) to INICT13A type CIU.
3	B	Confirm support for the added address range for BRCx00 type controller modules. Previous modules could accommodate block addresses to 9999, whereas BRC modules can support block addresses to 29,999, and are now supported.
4	E	Add alarm priority to OPC A&E interface within ALARM_PRTY field.
5	B	Resolve issue in Configurator that prevented entry of 7 alarm priority levels.
6	B	Resolve memory consumption problem, introduced in error at version 3.6.8, which caused increased memory use at occurrence of DIGITAL alarms (FC45).
7	B	Resolve alarm queue issue when no client connected in OPC A&E interface. This issue caused a memory table to accumulate alarms, and consume memory, if no client is connected to the A&E interface to consume alarms.
<b>OPsCon Version 3.6.9 - Release Date – March 7, 2008</b>		
1	B	Resolve a bug in the Date Mapping function that applies to certain sites that used this function as part of Y2K remediation. This issue will NOT apply to other sites. For sites with Date Mapping involved, a two day offset error occurs to the day of the week between 1 March 2008 through 31 December 2008.
<b>OPsCon Version 3.6.8 - Release Date – January 14, 2008</b>		
1	E	Support is released for OPC Alarms & Events standard version 1.02. This adds an OPC A&E interface to the driver within OPsCon. This driver now supports OPC Data Access 2.0 and OPC Alarms & Events 1.02.
<b>OPsCon Version 3.6.7 - Release Date – January 2, 2007</b>		
1	E	Support is added for iFIX v4.0. Please note that support is no longer provided for iFIX versions 2.5, 2.6 and 3.0. Support is now available only for iFIX v3.5 and iFIX v4.0.
2	E	Modify all loadable blocks, Synchronization Agent, Console Autoport, driver, and other functions so that OPsCon will not support 7 alarm priorities, consistent with alarm priority changes in iFIX v4.0. Previously only three alarm priorities (HI, MED, LO) were supported. Now 7 alarm priorities (INFO, LOLO, LOW, MED, HI, HIHI, CRITICAL) are supported. Alarm priority mapping from Bailey alarm priority to iFIX alarm priority at Console Autoport is as follows: <ul style="list-style-type: none"> <li>0 - INFO</li> <li>1 - LOLO</li> <li>2 - LOW</li> <li>3 - MEDIUM</li> <li>4 - HIGH</li> <li>5 - HIHI</li> <li>6 and above – CRITICAL</li> </ul>
3	B	Corrected parsing error within driver for FC177 DAANG block type. This error affected OPC interface for FC177 – DAANG block type, which incorrectly showed the hardware fault bit HF as active most of the time. This issue also effected HW fault field within DAA block in iFIX.
4	B	Resolve problem which prevented (sometimes) save of iFIX PDB when using Synchronization Agent to synchronize OPsCon and iFIX tag database.
5	B	Resolve problem with TTG file export function that generated erroneous TTG file.
<b>OPsCon Version 3.6.6 - Release Date – November 18, 2005</b>		

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1	B	Previous version had hidden unlock code within communication protocol restart sequence to identify itself to now obsolete Previs CIU protocol emulator used for testing. This CIU protocol emulator is rendered obsolete via full release of Previs Bailey DCS Simulator product. This hidden unlock code had no effect on communications. However, since this is no longer needed this function has been removed at this version.
2	B	In previous version, directory path information (to xxx.CIU file) entered at Configurator   Options   Setup is lost when Configurator and Driver (CIUDRV) exits. This occurs only when driver (CIUDRV.EXE) is started by Configurator, and does not occur when driver is first started as a service prior to Configurator connection. Change is made at this version to ensure that path information is persistently stored, regardless of how, or in what sequence, Driver (CIUDRV.EXE) and Configurator are started.
3	B	In previous version, the file BaileyOPCServer.INI needed to be located at the directory path specified at Configurator   Options   Setup. If this file was not located at that path, then the file would not be found at startup. File is initially installed into product installation directory (i.e. where CIUDRV.EXE was installed). Change is made at this version to search ONLY to this installation directory.
<b>OPsCon Version 3.6.5 - Release Date – June 24, 2005</b>		
1	E	Add support for Microsoft Windows XP Professional including SP1 and SP2.  Previously OPsCon clients would execute on XP and XP SP1, though XP SP2 installs would not work correctly. Previously OPsCon server would execute on XP and XP SP1, but would not execute correctly as service, and would not work at all under XP SP2.
<b>OPsCon Version 3.6.4 - Release Date – April 18, 2005</b>		
1	B	Resolved bug at Configurator Module property page NODE DESCRIPTION FIELD. Previously this field used to incorrectly display the last edited value.
2	E	Configurator improved GUI for file save / save as and export functions. FileSave.. function now causes only CIU file to be saved. Other file types must be explicitly named in FileSaveAs.. function.
3	E	Changes to enhance time sync verification logic for checking of correctness of time/date information before changing Windows time / date..
4	E	Disabled time sync master operations for the first 8 minutes after restart as recommended by ABB manuals.
5	E	Modify time synchronization protocols, for action as either time sync master or slave to disable all time synchronization output messages for 100 seconds after each time action to prevent feedback from time sync in case a console is set as both master and slave.
6	E	Modified CLU.EXE and VBTUNE.OCX to reflect updated Function Code information for recently added function codes, and for function code modifications.
7	B	Minor communications protocol change to move position of "DefineSystemNodes" message within the protocol to a position more consistent with that within native PCV communications. This change is not in response to any known problem report, and is not expected to impact any site.
8	B	Resolved numeric problem functions specific to processing REAL 4 analog values from the Bailey DCS. This problem, not reported from any site, may result in retrieval of incorrect block specifications.
9	B	Corrected bug in time synchronization logic, affecting plant loop systems only, and only affecting systems in which driver is configured as time slave. This bug, to date observed only in the lab, would cause driver crash under obscure conditions.
10	B	OPC interface modified to expose EventTrans15 attribute for all block types. EventTrans1 through EventTrans14 had previously been exposed, and EventTrans15 should have been. This is a minor change that does not affect any known installations, and is likely not to be of interest to most users.
11	--	Multiple enhancements to documentation including OPC interface Manual, Configurator Users Manual, Bailey DCS Connection Manual.
12	E	Add A_PID field to BST block for STATION type tags. This field supports manual entry of PID block address as integer string so that STATION tuning function can electively tune either STATION block or it's associated PID block.
<b>OPsCon Version 3.6.3 - Release Date – September 27, 2004</b>		
1	E	Add new <b>Configurator   Export</b> function to export TagStatistics.RPT file to aid in system performance troubleshooting. This function will export full tag database (selected fields only) together with communication statistics so that tags with unusually high number of data exceptions may be located.

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2	E	Add capability to automatically start data communications at startup when configured as standalone server. There are now several ways to start communications including: <ul style="list-style-type: none"> <li>▪ Manually via Configurator start button</li> <li>▪ Automatically from a properly designed client application</li> <li>• (New) Automatically via [StartOptions] AutoStart setting in <b>BaileyOPCServer.INI</b> file.</li> </ul>
3	E	Modify communication protocol so that it is NOT possible to request data exception packet while there are pending commands (i.e. write to DCS) in the output queue. This will have the effect of decreasing time for operator to observe response to requested action in some high communications traffic situations.
4	E	Add support, within driver, to index through an array of Engineering Unit Strings using the EUINDEX specification. This features may be configured from the BaileyOPCServer.INI file. Configuration includes ENABLE/DISABLE as well as an indexed array of text strings. If ENABLED, then driver indexes array of strings based on EUINDEX parameter received from DCS (requires EUINDEX specification to be correctly populated). If DISABLED (this is the installation default), then driver, and remainder of OPsCon, works as it did prior to this change, with EU entered manually at Configurator or imported via tag database file. Affects analog type tags only.
5	E	Modify Configurator RMSC tag property dialogue to add Alarm Extension Field 1 and Alarm Extension Field 2. This data was already supported within the driver, and many tag databases will already have this data present. However, before this change there was no means to edit or change the field contents. Change also made to Synchronization Agent to synchronize this data to IFIX and to the RMS loadable block dialogue box to also show the same fields.
6	B	Modify Configurator   tag search functions so that cursor does not disappear during search operations.
7	B	Repair bug in driver that affected acquisition of module status for the high address member of a pair of redundant controller modules. This bug would have prevented on line configuration of redundant controller module pairs.
8	B	Correct Configurator bug that occasionally effected data presented in Configurator Module Status statistics page.
9	--	Change the domain of possible values for the <i>CIU(Channel) - Tuning Parameter</i> attribute from {250,1250} to {100,1250}
<b>OPsCon Version 3.6.2 - Release Date – July 2, 2004</b>		
1	B	One change at version v3.6 was the addition to the communication protocol of a RegenSpecs command that proceeds through all tags in the database on a round robin basis and transmits a "RegenSpecs" command to the DCS. The impact of this is that it forces a periodic refresh of all tag specs. Version 3.6.2 repairs one side effect of this change, caused by a latent bug in the BAI block (only). This bug causes any ACKED alarm in alarm summary to disappear from alarm summary when new specs are received (regardless of actual alarm state), and then re-enter the alarm summary upon receipt of next exception. BAI block has always worked this way, but the issue wasn't noticeable on previous releases because specs were seldom received. At v3.6 since the specs being refreshed more frequently the issue is more noticeable. Given that this affects only alarms that have already been ACKED, and given that alarm re-appears after next forced exception, this is not a safety issue. However operators may be annoyed that they have to re-ACK the same alarm again and again.
2	B	RegenSpecs protocol (added at v3.6) modified to ONLY send RegenSpecs for any tag that has NOT reported an exception for 120 seconds or more.
3	B	Resolves possible issue which may cause inordinate delays (in seconds) for command output to DCS (i.e. RCM control etc) under limited circumstance.
<b>OPsCon Version 3.6.1 - Release Date – March 26, 2004</b>		
1	B	Review ALL A_**[*] fields in all loadable blocks, and enhanced the error checking in all of these fields. This review, and the block changes, were made after Previs discovered in the lab that one such block field (A_STMODE[3]) was capable to cause repeatable Workspace crash. No reports of this problem have been received from any installed site. This has only been observed with iFIX v3.5 on W2000 platform. It not known if this problem would affect earlier installations.
<b>OPsCon Version 3.6 - Release Date – December 19, 2003</b>		
1	E	Add Support for iFIX v3.5. This version of OPsCon supports iFIX versions 2.5, 2.6, 3.0 and 3.5.

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2	E	Add support for Windows 2003 on both Server and Client install. Current operating system support is: <ul style="list-style-type: none"> <li>Windows NT SP6 (server plus client)</li> <li>Windows 2000 SP2 (Server plus client)</li> <li>Windows 2003 (server plus client)</li> <li>Windows XP (client only)</li> </ul>
3	E	Previously, support for FIX32 v6.15 and FIX32 v7.0 was dropped from OPsCon at Version 3.4 (September 5, 2002). to serve the needs of existing FIX32 clients, support for FIX32 v6.15 and FIX32 v7.0 is added back to OPsCon at this release. All new customers are encouraged to use iFIX instead of FIX32, as FIX32 support is not assured in the future.
4	E	Modified OPC Server (CIUDRV.EXE) so that it can start as a operating system service. This is one of the required changes to support operation under various Windows OS, though other changes may be required. In addition, this is expected to improve the startup sequence.
5	E	<b>Bailey DCS Communication protocol change - Affects all serial protocols:</b> Previous protocol acquired module problem reports for each module at system startup, and at module status change. Communication protocol has been modified so that problem reports are only acquired upon request from OPC Client. This change is matched with change to Problem Reports OCX and System Explorer to disable ability to gather extended problem reports (while leaving capability to gather other module status). Change is also matched with changes to CLU application such that user is prompted to wait for operation to complete before selecting another action. Results in faster startup behavior, reduced likelihood of simultaneous problem report requests to multiple modules, and decreased communications load peaks, while retaining all functional capability.
6	E	<b>Bailey DCS Communication protocol change - Affects all serial protocols:</b> Previous protocol attempted to acquire exceptions from CIU at DCS whenever idle. As CPU speeds have increased this has resulted in command frequency from driver to CIU a higher frequency than required. Communication protocol has been modified so that driver will ensure a minimum time spacing between successive acquisition commands. This change has arisen from review of communications protocol behavior on late model native Bailey consoles (PCV and others) and is verified to be consistent with native Bailey console behavior.
7	E	<b>Bailey DCS Communication protocol change - Affects all serial protocols:</b> Add Tuning Parameter to support tuning of protocol to specific plant situations. Tuning parameter appears at OPC Interface and at Configurator as CIU property. Default setting is recommended in most situations.
8	B	<b>Bailey DCS Communication protocol change - Affects all serial protocols:</b> It has been reported by one site (only) that occasionally one or two RCM type tags seem to lose connection with the DCS, such that these tags stop receiving exceptions and cannot be controlled. The site reports that if these tags are manually disabled (via Configurator) and the re-enabled, then normal operations resume. To date, this problem has not been observed elsewhere, and has not been reproducible in the lab. In an attempt to resolve this problem the following change is made: <ul style="list-style-type: none"> <li>(Optional) Function is added to monitor each RCM tag type (only) for absence of DCS exception. If no exception is received from DCS for Timeout Period (Timeout set to 150 seconds) then the driver will issue a Connect command to DCS to reconnect this specific tag. New function takes no other action. Upon receipt of Connect Command the DCS will re-connect this tag, irregardless of whether existing connect is broken or not.</li> <li>This function is optional, and is controlled by Windows registry key. Registry key is located at: <i>Software\Intellution\Drivers\CIUDriver\Defaults</i> and is called Value (DWORD) <i>ConnectOnTimeout</i>. Registry key can takes values &lt;0=disabled   1=enabled&gt;. Default at installation is &lt;0=disabled&gt;.</li> <li>Use of this function is not recommended unless this specific problem has been observed.</li> <li>Current thinking is that problem is caused by PCU memory limitations at this site. As the PCU is near the limit connections occasionally get dropped from the list. It is expected that the "connect point group" command used in this case will refresh the connections list. Upon receipt of this command the DCS responds each time with 2 new exceptions (specs + data).</li> </ul> Please report this problem if observed.
9	E	<b>Bailey DCS Communication protocol change - Affects all serial protocols:</b> Modified so that specifications are refreshed on a round robin basis on the lowest priority when there is no other traffic demanding attention.
10	B	Resolved problem that prevented the alarm ACK feature for plant loop (released December 18, 2002) from properly functioning. Problem was observed as Alarm ACK from one console failing to reach another.

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Item	E/B	Description
11	B	It had been reported that Problem Report ActiveX Control, when opened and closed many times (i.e. many hundreds of times), caused consumption of memory resources leading to eventual system failure. Investigation revealed that undeleted objects and unclosed handles remained at ActiveX control termination. Problem resolved and tested.
12	E	<b>OPC Interface Change:</b> Change logic in support of OPC Quality attributes so that OPC Item Quality is marked BAD for selected OPC Items when Bailey Q attribute is BAD.
13	E	<b>OPC Interface Change:</b> OPC Interface is modified to include an extensive set of driver performance statistics at the CIU, Module and Tag level, to support driver performance analysis and tuning where required and to assist in providing support to field personnel if required. The new performance attributes all take the form <i>Stat....</i> (e.g. StatXmtTotal, StatException, etc) and are all described in detail in the OPC Interface description. Use the accompanying OPC Client to monitor these values, or store these values in a historian for longer term analysis. Some assistance may be required to interpret performance results.
14	E	<b>OPC Interface Change:</b> New field FC_Type is added at each block level tag within the OPC Interface. FC_Type display a string to indicate which type of block this block is from the following list (in upper case): ANALOG, DIGITAL, STATION, RCM, RMSC, DD, MSDD, RMCB, TEXT, DAANG, ANALOGO, DIGITALO
15	E	<b>OPC Interface Change:</b> New OPC Item called <i>MessageString</i> is added to OPC Interface for all tags of type FC151 (Text String). Whereas OPC Item <i>CV</i> displays the index number (integer) from the FC151 text block, the <i>MessageString</i> item displays the text string selected by indexing an array of strings. The array of site specific txt strings is contained within file BaileyOPCServer.INI.
16	---	The name of driver INI file, formerly called EventTrans.INI, has been changed to BaileyOPCServer.INI. This name is more general, and supports the addition of additional driver INI properties.
17	E	<b>Configurator Change:</b> Add support at Configurator to select TELNET channel, over TCP/IP, as a new CIU channel type for connection to Previs Bailey DCS software simulator. Bailey DCS software simulator, currently at beta release, supports execution within Windows environment of Bailey DCS controller CFG files, to simulate control behavior of DCS. This function is useful for console FAT (Factory Acceptance Test), operator training simulator, process logic checkout, and other uses. Please contact us if you require this functionality.
18	B	<b>Configurator Change:</b> Via the Configurator it should be possible to add, delete, or edit a CIU or MODULE object, ONLY when DCS data communications is OFF. Previously the Configurator erroneously permitted these operations when communications ON in some circumstances. Changes made to ensure that communications are OFF before add, delete, or edit at CIU or MODULE level is permitted. Addition, deletion, and modification of TAG level objects is supported while communications are ON.
19	E	<b>Configurator Change:</b> Changes made with respect to <b>Module Property : Polling   Primary Rate</b> as follows: Default value is changed to 15 seconds. Configurator will no longer accept value below 15 seconds. For migration planning values lower than 15 seconds in CIU or CSV file will automatically be increased to 15 seconds.
20	E	<b>Configurator Change:</b> Changes made with respect to <b>Module Property : Polling   Access Time</b> as follows: Default value is changed to 02:00 minutes. Configurator will no longer accept value below 02:00 minutes. For migration planning values lower than 02:00 minutes in CIU or CSV file will automatically be increased to 15 seconds.
21	B	<b>Configurator Change:</b> Configurator Menu option <b>Options   Templates</b> has been deleted. This function was seldom used by any user, and was a considered a relic. Function supporting the setting of default values for new CIU/Module/Tag objects, and in any event it is preferred that installation defaults not be changed. Resolves SEA SCR#16609.
22	B	<b>Configurator Change:</b> Module and Tag Properties Page – Point Index Field: Previous version permits “?” to be entered at this field and returns unique point index in range 0, 1, 2, 3, ... <tag limit>. Algorithm has been modified such that “?” returns unique point index in range 1, 2, 3, 4, ...<tag limit>. This will resolve some field issues reported around consequence of using point index 0 for various tags and modules. It is preferred that point index 0 be reserved for the CIU to which this server is connected.
23	B	Minor CLU changes, to better reflect the EXECUTE and CONFIGURE modes states at CLU module mode control screen. Previous states were a bit confusing.



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Item	E/B	Description
24	E	<p><b>Documentation:</b> Various improvements have been made to the OPC Interface description (document) including the following:</p> <ul style="list-style-type: none"> <li>- Add FC_Type field to all blocks (per this release note)</li> <li>- Add performance related fields (per this release note)</li> <li>- Add details regarding best data type to use for each OPC Item</li> <li>- Add details re addressing each OPC Item</li> <li>- Clarify how to set up and use ANALOGO and DIGITALO tag types</li> <li>- Add details at all levels of browse tree</li> <li>- Add descriptions of LastErrorCode</li> <li>- Several error corrections</li> <li>- Add information about OPC Item Quality status.</li> </ul>
25	E	<p><b>Documentation:</b> Technical manual – Bailey DCS Connections is added. This manual includes information that was previously in Administrator’s Manual Appendix C. Manual has been updated with latest information to describe IIMCP02 and INICI03 connections via SSCI and serial protocols.</p>
26	E	<p><b>Documentation:</b> Delete outdated Configurator On Line Help and replace with new Users Manual – Configurator. The new manual provides more accurate information, better troubleshooting instructions, and better guidance on how to set up connection.</p>
<b>OPsCon Version 3.5.1 - Release Date – January 15, 2003</b>		
1	B	<p>Corrected bug introduced at version 3.5 that affects CLU configuration functions. Bug affects version 3.5 installations only. Bug will prevent proper CFG upload/download operations, as well as add/delete block operations.</p>
<b>OPsCon Version 3.5 - Release Date – December 20, 2002</b>		
1	E	<p>Add additional communications protocol support to driver. Previously the driver supported most serial RS-232 protocols for DCS communications. The driver now also supports SCSI protocol for connection to the following Infi 90 part numbers:</p> <ul style="list-style-type: none"> <li>• INMCP02 (component of the Multibus CIU installed within OIS4x consoles)</li> <li>• INICT03 processor (component of INICI03 computer interface)</li> </ul>
2	E	<p>Added support to share alarm ACK between consoles via the Bailey DCS. With this change, an alarm ACK at one console will be received at other consoles. At this time this protocol support is limited to Net 90 DCS systems with CIU03 communications. This support is also ONLY available at the OPC interface, such that alarm ACK can only be entered via the OPC interface, and will only be seen at the OPC interface. This change supports Alarm ACK exchange between mixed console systems. With this change an Alarm ACK on a Bailey PCV console or other native console will be observed at the OPC interface, and an Alarm ACK at the OPC interface will be observed on the other native Bailey consoles. This feature can be Enabled at the Channel/CIU level, and on a tag-by-tag basis.</p>
3	E	<p>The general purpose OPC client supplied within the product has been enhanced as follows to make it more useful for monitoring a selected list of items:</p> <ul style="list-style-type: none"> <li>• Supports SAVE of selected items to a text file and file OPEN, so that a previously used tag list can be used again</li> <li>• Supports SAVE complete data set of currently viewed data to text file.</li> <li>• Supports easier removal of items from selected list</li> <li>• Supports simply selection of ALL items for any selected ciu   loop   PCU   Module   block address.</li> </ul>

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Item	E/B	Description
4	E	<p>A number of changes have been made to the Configurator screens used to add and modify Channel (CIU), Device (Module) and Data block (block) objects. These changes have been made to improve readability and to support protocol changes and other driver changes made at this release. A detailed list of changes includes:</p> <p><b>Channel (CIU) Object:</b></p> <ul style="list-style-type: none"> <li>• “Time Sync” page has been replaced by “Options” page.</li> <li>• “WD Timeout” edit control, “Station Control Allowed” checkbox, “Exception Screening” check box, “DAANG Type “ checkbox, “Check Sum Enabled” checkbox have been moved to “Options” page</li> <li>• Ability to select SCSI interface for channel has been introduced for the communication port, if SCSI is available</li> <li>• “Restart” to support automated INICI03 restart in restricted circumstances (INICT03 firmware version F&lt;x&gt; with hardware key installed). Please note that INICT03 firmware upgrade (to version G0 or later) or downgrade (to version E5 or earlier) is recommended instead of periodic restart.</li> <li>• Option added to support Enable/Disable Receipt of Alarm Acknowledge from another console (details elsewhere)</li> <li>• Checksum Enable/Disable check box was added to support operations with protocol checksum disabled in certain circumstances.</li> </ul> <p><b>Device (Module) Object:</b></p> <ul style="list-style-type: none"> <li>• “Extended Module Status” Checkbox has been introduced to Enable/Disable Extended Module Status for a module</li> <li>• “Send Alarm Acknowledge Message” checkbox has been introduced to Enable/Disable Send Alarm Acknowledge Message for a selected module (supports alarm ACK via OPC interface only)</li> </ul> <p><b>Data block (Block) Object:</b></p> <ul style="list-style-type: none"> <li>• “Send Alarm Acknowledge Message” checkbox has been introduced to Enable/Disable Send Alarm Acknowledge Message for a data block (supports alarm ACK via OPC interface only)</li> <li>• A number of Edit Controls become not editable, while DCS communications is up and running, this change was done for fields received values from the Bailey hardware</li> </ul>
5	E	<p>CLU (Configuration loading utility), System Explorer and the Problem Report ActiveX control have all be modified to add a “Get Extended Problem Reports” button, so that the user may specifically select when extended reports are to be gathered from the DCS. Previously the extended problem reports were gathered at each access, which imposes a needless DCS system performance burden.</p>
6	B	<p>Corrected a reported problem at OPC Interface with EventTrans# items. Previously EventTrans# item did not get correct values from ini file settings.</p>
7	B	<p>Resolved communication protocol problem that affected LMM02 module with old firmware versions. May also affect some versions of old AMM and CLC modules. Previous protocol may cause LMM02 to red light as a result of driver request for extended module status information, which is not supported for old versions of this module. Problem corrected by adding checkbox to Configurator to Enable/Disable extended module status requests on a module-by-module basis.</p>
8	B	<p>Resolved problem in FC177 DAANG (DAA) block. Previously DAA block did not correctly set NextHighLim and NextLowLim data fields</p>
9	B	<p>Resolved minor issue in Module status BMD block. Previously unexpected values appeared in unused alarm area fields A_AREA2 to A_AREA15. This affected filtering of BMD alarms.</p>
10	B	<p>Minor data link correction to faceplate for FC177 DAANG function code.</p>
11	B	<p>Resolve issue in registry and un-registry of OPsCon Global Page. Previously, if user uninstalled OPsCon and then installed again some faceplates would report error “Function doesn’t exist”. Problem would not report for new installs or for a revised install directly on top of an old one (without uninstall). Please note that upgrade installations are provided within the White paper – Upgrade Instructions on the CD-ROM.</p>
12	B	<p>Resolve minor issues in OPsCon Uninstall process. Previously, if any OPsCon application wrote something to the registry, which is a rare occurrence, the registry could not be removed during Uninstall, and an error message “OPsCon is already installed. Proceed with installation anyway?” would appear at an install after uninstall.</p>
<b>OPsCon Version 3.4 - Release Date – September 5, 2002</b>		
1	E	<p>Provide support for iFIX v3.0 on Windows 2000.</p>

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Item	E/B	Description
2	E	Numerous enhancements to OPC Server including: <ul style="list-style-type: none"> <li>Enhanced data type support</li> <li>More module data, particularly for backup module</li> <li>Enhanced alarm processing</li> <li>Improved driver and communication status reporting</li> </ul>
3	E	Added new ActiveX control to present module status, diagnostic and problem report data. This is called ProblemReport.OCX
4	E	BMS Block enhanced to provide further status information for the backup module in a redundant module pair.
5	E	ActiveX controls for block tuning, and the sample screens provided to show how to use them, have been improved
6	B	Improved performance and function to existing CLU, System Explorer clients for module status reporting. Previously, CLU or System Explorer would lock up if there were extraordinarily large amounts of module error data (problem report data). Now, this information is only requested if specifically needed, and operator can cancel request.
7	E	Previously, at driver startup, the default configuration data (e.g. hi/lo span limit, alarm settings etc) within Configurator was NOT written to OPC interface, such that the data for these items was not available until after the first DCS exceptions were received. Change made to write Configurator default data to these OPC items at startup. This only affects transient startup behavior, as these default values are overwritten once DCS data arrives.
8	E	Modify Q OPC attribute for all Function Code Types so that the value is set to 1 if any of the following occur: <ul style="list-style-type: none"> <li>Q = 1 is reported by the DCS</li> <li>Driver is manually stopped</li> <li>Communications failure</li> </ul>

### OPsCon Version 3.3.2 - Release Date – April 11, 2002

1	B	Correct Text.dll defect, which had resulted of improper behavior of BTX Loadable block within Database Manager. This defect affected ONLY installations with iFIX 2.5 or iFIX v2.6., within Windows 2000 environment, and only while iFIX was running as a service under Windows 2000.
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### OPsCon Version 3.3.1 - Release Date – April 5, 2002

1	E	The following OPC Item properties have been added to the OPC interface for all tags: <ul style="list-style-type: none"> <li>Hardware Address – data block Bailey address in format &lt;loop&gt;:&lt;pcu&gt;:&lt;module&gt;:&lt;block&gt;</li> <li>Tag_Name – tag name in the iFIX PDB database</li> <li>Description – data block description</li> <li>UNIT – engineering unit</li> <li>ALM_EXT1 – alarm extension 1</li> <li>ALM_EXT2 – alarm extension 2</li> <li>ALM_AREA – alarm area</li> <li>PVZERO</li> <li>SPZERO</li> <li>SPAN.</li> </ul> <p>For an OPC Item, which may have an character string (Label) as a value correspondent to the numeric value, the character string is displayed, if this OPC Item created as a string ( for example CV, FB1, FB2, FB3, FB4, ... ). An OPC Client can create any OPC Item for correspondent OLE interface property of the data block, by naming an item as PR_&lt;OLE property name&gt;, for example PR_Name. Those properties are not shown in the OPC Browser tree.</p>
2	B	Correct a defect in the BDI block. This defect was introduced inadvertently at v3.3 and resulted in not generating alarms for this block.

### OPsCon Version 3.3 - Release Date – March 8, 2002

#### Changes that Affect All Installations

1	E	Add a GRF file that provides functionality to export a TTG file to describe OPsCon console tag database. The TTG file can be used within the ABB/Bailey WinTools software to verify tag database consistency between WinTools database and OPsCon tag database.
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Item	E/B	Description
2	E	Add a command line function called ScanCAD.EXE to scan entire directories of CAD files and produce an Microsoft Access MDB file with tag name, block address and CAD file cross reference information. Also added at this release is a GRF file function to load the data from this MDB file into the OPsCon iFIX process database to provide on line CAD file cross reference information within the console.
3	E	Add GRF file function to manage nuisance alarms. This function allows the maintainer to obtain a list of all alarms that have been disabled at the console, to manually enable alarms from this list or disable additional alarms
4	E	Changes have been made within OPsCon to increase tag capacity from 10,000 tags to 30,000 tags. This does not affect OPsCon functionality with any of the serial DCS connections, but has been done in preparation for addition of SCSI interface support to OPsCon.
5	E	Added a new optional mode of Configurator operations, which supports simultaneous tag updates to BOTH servers in a redundant pair. This mode is useful when the end user wants to maintain two IDENTICAL redundant servers, because the Configurator will update the tag database in each server in a single edit operation, whereas two operations were previously required. The Configurator defaults to "single server" mode, but provides optional "dual server" mode via the Configurator Option/Setup set up dialogue.
6	E	BMS block (module status) alarm logic changed to support optional selection of minimum (alarm only if major problem) or maximum (alarm all problems) alarm generation.
7	B	Correct a server defect which had resulted in a report of slow exceptions communications speed from the DCS. This was observed as data updates (from the DCS) being received at the console with several (and up to 60) seconds of delay from when the data exceptions were confirmed to have occurred. This problem appears caused by incorrect Module (or device) configuration (i.e. bad address). Normally, this should not be a problem. However, instead of affecting ONLY the communications for that single module or device, the communications for an entire set (or range) of data blocks was affected, with the end result that this range of blocks received exceptions only after a time delay of from 1 to . Corrections made include: <ul style="list-style-type: none"> <li>• Improved error handling within driver</li> <li>• The Configurator now displays a Last Error field statistic for all objects. If a number other than 0 is displayed in this field, then this object and/or it's parent(s) may have wrong configuration (most likely address or point index). This is to help locate address and point index problems</li> <li>• Connect only indices successfully established (to prevent affecting multiple objects)</li> <li>• Correct device state machine to execute Poll Settings.</li> <li>• Disable status polling if module/device configured incorrectly.</li> </ul>
8	B	Improve Configurator performance by reducing amount of data transferred to/from Configurator. In some situations where previous Configurator would use 90%+ CPU time for a few seconds, this CPU usage is now reduced to under 20%.
9	B	Improve CLU performance by reducing amount of data transferred to/from CLU. In some situations where previous CLU would use 90%+ CPU time for a few seconds, this CPU usage is now reduced to under 20%.
10	E	User fields A_USR1 and A_USR2 added to the BTX and DAA blocks to make these consistent with other blocks

### OPsCon Version 3.2.1 - Release Date – January 4, 2002

#### Changes that Affect All Installations

1	B	Resolve problem introduced at v3.2 that results in "error – unable to locate BTXDL.DLL file" at iFIX startup. Affects v3.2 installations only.
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### OPsCon Version 3.2 - Release Date – December 4, 2001

#### Changes that Affect All Installations

1	E	Add support for iFIX v2.6 and Intellution iHistorian process historian products. This enables OPsCon to be integrated with iHistorian process storage of up to 100,000 tags.
2	E	Add support for Microsoft Windows 2000 operating system
3	E	Add White Paper – OPsCon Upgrade Procedure to describe procedure for installing upgraded versions of OPsCon and iFIX.
4	E	Add GRF file for alarm display to integrator samples. This sample GRF provides a tabbed display with dynamic alarm filtering by priority, alarm area and more.

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Item	E/B	Description
5	E	Support added for Specter instruments Win-911® product. Win 911 supports automatic alarm notification via video, audio, pager, and standard voice telephone, and now will support such notifications for OpsCon generated alarms. Win-911 is a registered trademark of Specter Instruments at <a href="http://www.specterinstruments.com">http://www.specterinstruments.com</a> .
6	E	Made improvements to MSDD tag to support improved alarm inhibit function in response to field request.
7	E	Made improvements to OPC interface data types support for improved OPC standards compliance to in response to field request.
8	E	Added OPsCon.FXG global page with many frequently used VBA functions as a resource for integrator use.
9	E	Added complete set of working control popups and control faceplates.
<b>OPsCon Version 3.15 - Release Date – June 6, 2001</b>		
<b>Changes that Affect All Installations</b>		
1	E	Support iFIX v2.5
2	E	Change DAA (DAANG) loadable block logic to support inhibit of individual alarms (i.e. HI, HIHI, etc) per field request.
<b>OPsCon Version 3.14 - Release Date – April 24, 2001</b>		
<b>Changes that Affect All Installations</b>		
1	B	User in China reported “ at CD installation when we get to last step we encounter warning window with message “server *fatal error! *can not set up language information, please contact vendor.”. Problem was with international language support and is resolved at this release.
<b>Changes that Affect iFIX Installations Only</b>		
2	B	Changes to Bailey DT to iFIX GRF graphics conversion to: <ul style="list-style-type: none"> <li>• Correct ed 54, 49 graphics conversion (blink missing)</li> <li>• Correct ed 42 graphic conversion</li> <li>• Correct ed 54, 49 graphics conversion</li> <li>• Improve robustness with wrong number of RS statements in DT file</li> </ul>
3	E	Add Actitune ActiveX tuning component. This is an ActiveX component which supports tuning from within any ActiveX container (including the Workspace). Actitune component is accompanied with: <ul style="list-style-type: none"> <li>• White Paper to describe this component</li> <li>• A selection of GRF screens (see integrator samples) showing how this component is used for tuning</li> <li>• A VB application that uses this component for tuning (see integrator samples)</li> </ul>
4	E	Add samples for integrator use including: <ul style="list-style-type: none"> <li>• GRF to launch applications without creating multiple application instances</li> <li>• GRF for keyboard testing</li> <li>• GRF for sample pop-ups</li> <li>• VB application for tuning (see Actitune)</li> <li>• GRF tuning samples (see Actitune)</li> </ul>
5	B	Fixed OPsCon server bug which would occasionally cause server lockup with multiple OPC clients accessing same the blocks. Symptoms of this bug were: 100% CPU on server, no exceptions to iFIX, sometimes caused Driver C++ exception error. Problem resolved.
6	B	EWS version upgrade with minor bug fixes
<b>OPsCon Version 3.12 - Release Date - December 8, 2000</b>		
<b>Changes that Affect All Installations</b>		
1	B	Resolve problem whereby CIU initialize was performed when tags are edited in the OPsCon Configurator. This problem traces directly to a change made at OPsCon v3.11 and will not affect other users.
2	E	Add confirmation dialogue to OPsCon Configurator to request confirmation upon change to tag name or tag address.
3	B	Resolve problem in Intellution Database Manager export/import of PDB database as CSV or GDB file. Previously user may have encountered error log on import.
<b>OPsCon Version 3.11 - Release Date - November 21, 2000</b>		
<b>Changes that Affect All Installations</b>		

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Item	E/B	Description
1	E	Change OPsCon Configurator so that tags do not need to be taken off scan while editing them. Previously a tag being edited was DISABLED to start the edit process, and ENABLED when the edit process was complete and the tag change APPLY button was pressed. This has been changed so that the tag remains ENABLED throughout the time while the tag is edited, and then, when the APPLY button is pressed, the tag is momentarily taken off scan to apply the tag change as a transaction. This change is designed to decrease operations risk due to tags inadvertently left off scan due to human error. This change also improves usability by decreasing the number of user actions required to edit a tag.
2	E	Updates to Administrators Manual Section 4 - Configuration to provide detail with respect to network setup.
3	E	Updates to Administrators manual Appendix E - Troubleshooting to add details with respect to a number of issues that have been observed in the field
4	B	Problems with the F_GCV[0] field in the BST block, and other similar F_Gxx[n] fields in other analog blocks, have been fixed. These fields were providing the wrong data under certain circumstances.
5	E	The OPsCon "E" option, which inhibited functions of the CLU utility (add/modify/delete block, module mode control, upload/download CFG file), has been removed. These functions are now enabled on all versions of OPsCon, and the "E" product configuration switch is discontinued.
6	B	Resolve problem which prevented data entry to Alarm Inhibit fields of various blocks under certain circumstance.
7	B	Improve OPsCon robustness in incorrect configuration situations where there is no CIU file for the driver but Intellution FIX/iFIX HMI is fully configured and expects to communicate.
<b>Changes to Display Conversion - Applicable to iFIX installations only</b>		
1	E	Updates to White Paper - Graphics conversion for iFIX. Changes made throughout to provide improved procedures in response to suggestion received from various users.
<b>OPsCon Version 3.07 Update 2 - Release Date - July 8, 2000</b>		
1	E	Previously, the F_EHI and F_ELO fields of the BST (station) block were linked to Control Output (CO). A number of customers have requested that this be changed so that the F_EHI and F_ELO fields relate to the Present Value (PV) instead of to CO.  To ensure that existing systems are unaffected by upgrades, an additional radio button field has been added to the BST dialogue box within the PDB. This radio button allows the user to select whether to link the F_EHI & F_ELO fields to CO or PV.
<b>OPsCon Version 3.07 Update 1 - Release Date - May 8, 2000</b>		
1	E	Add additional console porting support for logic state descriptors and engineering units. With this change it will be possible to import this data automatically for most installations, thus reducing the requirement to manually enter the data.
2	E	Add support to Console AutoPort to automatically import and populate the Alarm Area field for each tag. In addition, Console Port supports the mapping, at Console AutoPort conversion time, of the integer Bailey Alarm Area name to a mnemonic textual name within iFIX. (supported for iFIX only)
3	E	Add support for use of Analog Register (block type AR) tags in the Process Data Base (PDB) to provide status of the CIU driver and the CIU communications ports. These tags are automatically added by the Synchronization Agent. For more information refer to the Process Data Base Quick Reference Manual.
4	E	Added support for user defined station mode string within BST station block. Refer to OPsCon Text Server configuration within Section 4 - Configuration of OPsCon Administrators Manual. This implements changes to support the seldom used display element ed_77 within Bailey graphics files.
5	B	Repair and resolve memory leak problem that occurred in two specific situations: a) For the new BMS blocks added for the first time in OPsCon v3.07 b) For all other blocks if scan rate A_SCAN is set to any rate other than "E" (scan rate for OPsCon systems should always be set to "E")
6	B	Resolve problem that prevented alarm extension fields ALMEXT1 and ALMEXT2 from being saved into the binary CIU file when executing SAVE CIU file operation. This problem resulted in ALMEXT1 and AL:MEXT2 being stripped from system every time CIU file is saved.
7		Multiple upgrades to manuals and on line help.
<b>OPsCon Version 3.07 - Release Date - February 28, 2000</b>		
<b>Changes that Affect All Installations</b>		

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Item	E/B	Description
1	E	<p>OPsCon Data Server modifications have been made, and a new OPC client called CLU (Configuration and Loading Utility) has been added to provide the following new capabilities, and to improve other capabilities:</p> <ul style="list-style-type: none"> <li>- Perform module mode control (Configure, Execute etc)</li> <li>- Add, modify and delete blocks within any module</li> <li>- Load and unload CFG files to any module, to program module behavior.</li> <li>- Provide additional tuning functions</li> <li>- Provide a specific station tuning display</li> </ul> <p>CLU also supports off-line edit of CFG files so that you can add, modify and delete blocks.</p>
2	E	Support is added to automatically import alarm inhibit tag information from the DBASE III DBF tag list file into OPsCon. Alarm Inhibit tags from the DBF file will now appear in the Process Database.
3	E	Add full support for a new "loadable block" or data type, called BMS, within the Intellution Process Database. The BMS block will carry module status information into FIX and iFIX for display support purposes. An alarm is generated if any module is NOT in EXECUTE mode OR if there is a reported hardware fault. Display conversion support for module status related pages has also been added.
4	E	<p>Support added to automatically create the Intellution Process Database tags, of type AR (Analog Register), for the following items:</p> <ul style="list-style-type: none"> <li>- Driver Status</li> <li>- CIU Status (one tag for each CIU)</li> </ul> <p>This allows connection of display elements to display driver and CIU state information.</p>
5	B	Reported problem with OPsCon Central is resolved. Reported problem is: "When one OPC server (of multiple servers) is disconnected, the indicator on the right hand side will go from green to red. However, when the server is reconnected, the light does not go back to green. It is necessary to reboot the computer to get the light green again."
6	B	Reported Problem with System Explorer connection to OPC port of OPsCon Data Server resolved. Reported problem was: "Sometimes, when quickly drilling down through the System Explorer browse tree, the OPsCon Data Server will lock up, and the server will stop communication with the CIU. Recovery requires a reboot of both the client and server.
7	E	Support has been added, both within the "loadable blocks" and within the Conversion Utility, for full support of both static and dynamic alarm comments (ec 33 and ed 33 respectively within bailey DT files). The Database Quick Reference has been updated accordingly.
8	E	Startup Performance, and system robustness, are enhanced via a number of communication protocol changes to reduce the burst size of loop traffic during startup.
9	E	Adds a new, user selectable, mode to Synchronization Agent to support update of all Bailey blocks in the PDB, regardless of whether they have changed since last synchronization or not.
10	E	Revise <b>White Paper - Protocol Simulator</b> to describe how to use the protocol simulator on the OPsCon release CD to test CIU serial communications
11	--	<p>Support is added for the "E" switch within the OPsCon license serial number. The "E" switch will enable/disable the following functions:</p> <ul style="list-style-type: none"> <li>- Control of module mode</li> <li>- Load/Unload of CFG file to module</li> <li>- Add/modify/delete blocks</li> </ul>
<b>Changes that Affect iFIX Installations only</b>		
12	E	Support has been added for long Alarm Area names, to 33 characters, for iFIX only. Previously OPsCon supported only the Alarm Areas A to P as supported by FIX.
13	E	Support is added for long (i.e. 33 characters) Engineering Unit Descriptor fields (i.e. A_EGUDESC) within iFIX only. Previously OPsCon only supported EGU descriptions of 4 characters, this being the limitation in Intellution FIX.
14	E	Added a VB scripted iFIX trend object MCSTrend.fds to the iFIX dynamo set. This object, modeled on the standard trend object for Bailey MCS consoles, provides the "look and feel" of a standard MCS trend object to the greatest extent possible. End users should change this trend object to provide the trend "look and feel" that they want for all trends.

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Item	E/B	Description
15	E	OPsCon for iFIX will now support a variety of dedicated keyboard control functions for pop-up faceplates. Custom "OPsCon specific" membrane keyboard, with dedicated faceplate keys, is available as an accessory if required.
<b>Changes to Display Conversion Functions - Applicable to iFIX installations only</b>		
16	E	Add support for automated conversion of pop-up faceplates
17	E	Add support for automated conversion of keyboard based control for pop-up faceplates. This function populates all "main screen" GRF files, and "pop-up" GRF files. The conversion function will now assign certain function keys to dedicated "faceplate control" functions.
18	E	Added support for automated conversion of "touch targets" (mouse, track ball, or touch screen) within the DT files. These targets now appear as mouse targets within the converted screens.
19	E	The display conversion now generates a complete summary of display conversions errors and warnings at the file entitled: Output/ErrorSummary.log. Review this file to obtain an overview of all errors generated during the conversion process. This file can also be obtained more quickly using only the Review button on the conversion dialogue.
20	E	The display conversion function has been changed so that the following "escape codes" or commands within the DT files will no longer generate warning messages, since these escape codes are not needed: - mc, sm, pe, vd
21	E	Support is added for conversion of additional commands within Bailey DT files. This additional support reduces the number of unconverted commands encountered during conversion. Support is added for numerous additional commands, including the following: - ed_100 (display of red tag symbol) - ed_54_49 (advanced analog display objects - partial support added) - ei 107,82 (touch point select – display) also closes any open popups - ei 107,91 (touch point select – pop up) - ei 108,82 (key select – display) - at (append text) Contact Previs if you encounter additional unimplemented commands.
22	E	A number of users have reported that they have received the following error messages within the log files during conversions: - too many parameters on line - parameter xx : out of range - instruction now ignored - unexpected instruction  Review shows that these errors most frequently result from small errors that occur frequently within the syntax of the DT files themselves. These errors seem to happen most often within a small set of specific "command types" within the DT files. The display conversion function has been modified to try to detect the most frequent occurrences of these syntax errors and to automatically correct for them, so as to reduce the occurrence of this problem. Some errors of this type are still to be expected. Contact Previs technical support if you still encounter these problems
23	E	Conversion function now provides for persistent selection of default parameters so that these will come up automatically each time the conversion tools are invoked. Previous design required manual selection each time the tool was used.
24	E	Enhance speed of pop-up faceplate operation through use of tag group editor. Converted pop-up faceplates now derive their tag source from a TGD file within the iFIX PIC directory.
25	E	TGD Files are generated automatically by the conversion process. Previously CSV files were generated that needed to be converted to TGD files using Tag Group Editor.
26	E	Add support so that keyboard can be used to invoke pop-ups using the object numbers on the process graphic display.



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Item	E/B	Description
27	E	A number of escape code or commands within the DT file are used exclusively to support trend displays. Trend displays are NOT fully converted by the display conversion function. Instead, a trend object MCSTrend is placed within the dynamo set to serve as a seed, edited to meet user preferences, for manual creation of most trend pages. As trends will be manually created, a number of escape codes or commands within the DT file are not converted, as they are not needed. Previously these lines of code generated warning messages "command not implemented. These warnings have been changed in the log files to indicate that a trend page should be manually created. The escape codes affected include: - et_53, ei_108_86, ei_107_86
28	E	The following additional keyboard functions are auto-generated by the conversion utility: ESC - dismisses popup PAGE UP - pages up as per DT design PAGE DOWN - pages down as per DT design
29	E	Revisions to White Paper - Graphics Conversion for iFIX, to describe new and additional features
<b>OPsCon Version 3.05 - Release Date - 17 Sep 1999</b>		
1	B	Further changes, above changes made at v3.04, to resolve the problem that has been observed at some sites, where tags will occasionally spuriously go off scan, and can not be placed back on-scan. Changes tested in the lab and at two sites that have previously exhibited the problem, and the off-scan problem appears to be resolved. No further changes required. Report any additional occurrence of this problem promptly to dave@previs.com
2	E	Revise White Paper - Protocol Simulator to describe how to use it to test serial communications.
3	B	Resolve a bug in the OPsCon Synchronization Agent, introduced upon release of a SIM for iFIX v2.1. The SIM changed the text case for the FIX.EXE from "FIX.exe" to "Fix.exe", but the system call in Synchronization Agent was case-sensitive. Synchronization Agent is changed so that these calls are no longer case sensitive.
<b>OPsCon Version 3.04 - Release Date - Aug 24, 1999</b>		
1	B	Resolve problem that resulted in bad IO Address errors when IO_Addr displayed in ODF or GRF screen
2	B	Multiple changes to resolve the problem, that has been observed at two sites, where tags will occasionally spuriously go off scan. Changes tested at one site and resulted in a decrease in the rate of incidence of this problem. Problem still observed at one site. Further changes still required.
3	B	Graphics conversion for iFIX - resolve problem that occasionally distorts animated text (manual workaround for this problem involves making minor attribute change to any object on the GRF screen and resaving the file
4	B	Resolve problem that prevented Function Code 123 from being tuned by Loop Tuner
5	E	Add support for conversion of ei_107_82 within DT file.
<b>OPsCon Version 3.03 - Release Date - Aug 12, 1999</b>		
1	B	Correct the use of the EGU_DESC field for analog blocks so that the field appears correctly on trend diagrams
<b>OPsCon Version 3.02 - Release Date - Aug 9, 1999</b>		
1	B	Resolve a number of problems experienced in the field with CIC 01 communications protocol
2	B	Numerous changes in an attempt to resolve the problem, that has been observed at two sites, where tags will occasionally spuriously go off scan. Further changes still required.
3	--	Install new sales demo serial # without EWS option enabled
4	E	Add a number of Extended Color State fields to various loadable blocks. This permits displays to be created with operation close to native Bailey consoles.
5	B	Resolve OPC problem with update rates for large blocks of tags
6	E	Upgrade OPC libraries to the latest version available, at OPC v2.0. Though full OPC v2.0 support is not yet added this will permit OPC v2.0 features to be enabled over the next few months.
7	--	Add build number and date to the Configurator About box to assist in determining the version number installed during a support call
8	--	Add demo version of OPC gateway to the CD
9	E	Update Configurator so that it now displays problem reports and extended problem reports for modules in the same way as for System Explorer
10	E	Upgrade display conversion process for iFIX to create keyboard faceplates automatically
11	E	Add database dynamo for iFIX called ADP Button
12	E	Update White Paper - Display Conversion for iFIX with all latest material to describe display conversion process in more detail.

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<b>Item</b>	<b>E/B</b>	<b>Description</b>
13	E	Revise all manuals to indicate that support for iFIX v2.0 is withdrawn, and that OPsCon now supports iFIX v2.1 only.
14	E	Combine administrators manual for FIX and Administrators manual for iFIX into a single manual for ease of maintenance.
15	E	Add new manual called White Paper - Process Database Quick Reference. This manual describes Intellution process database in detail and replaces the content of Administrators manual Appendix C.
<b>OPsCon Version 3.01 - Release Date - Jun 29, 1999</b>		
First detailed release notes after this date		