

Release Bulletin Sybase Event Stream Processor 5.1

Linux

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Accessing Current Documentation

Sybase[®] Event Stream Processor periodically provides online documentation updates. Therefore, more recent versions of your documents may be available on the Web. To check for critical product or document information added after the product release, use the Sybase Product Documentation Web site.

To access documentation at the Sybase Product Documentation Web site:

- 1. Go to Product Documentation at http://www.sybase.com/support/manuals/.
- 2. Select Sybase Event Stream Processor.
- 3. Select your version from the Document Set list.
- **4.** Select the link to the document you want to read. For most documents, you can either download the PDF version or browse the document online.

Product Summary

Sybase Event Stream Processor enables you to create and run your own complex event processing applications to derive continuous intelligence from streaming event data in real time.

This release bulletin discusses known issues, workarounds, and late-breaking documentation updates for Sybase Event Stream Processor 5.1.

For information about supported platforms and operating systems, see the *Installation Guide*.

For information about new features in this release, see the New Features Summary.

For information about accessibility, see Accessibility Features in this release bulletin.

Download Requirements for Separately Licensed Adapters

When you order separately licensed adapters in addition to Event Stream Processor, download only one copy of the Event Stream Processor CD image per platform.

For convenience, the Sybase Product Download Center (SPDC) and the SAP[®] Service Marketplace (SMP) make the Event Stream Processor CD image available on its own and with each separately licensed adapter. However, when you order separately licensed adapters with

Event Stream Processor, you only require one instance of the CD image for each platform you are using. If you are using a single platform, download a single copy of the CD image.

Ensure you download a separate license for each adapter in addition to the license for Event Stream Processor.

Security Recommendations

Sybase strongly recommends that you enable operating system file access auditing capabilities to monitor and control the access of adapter and server configuration files. This is especially important for files containing passwords.

Installation and Upgrade

Get last-minute information about installation and upgrading that was omitted from or incorrect in your installation guide, or requires special emphasis.

See the *Migration Guide* for information on migrating from Sybase Aleri Streaming Platform to Sybase Event Stream Processor 5.1.

Sub-capacity Licensing

Sub-capacity licensing refers to licensing a Sybase product on a subset of the CPUs available on a physical machine. Learn about sub-capacity licensing for this version of Event Stream Processor.

Vendor	Product	Platform Support	Virtualization Type
Intel, AMD	VMWare ESX Server Guest OS: Linux	VMWare ESX 3.5, ESX 4.0 and ESX 4.1, Guest OS: RH 5.2, RH 5.5, RH 6, SuSE 11	Virtual machine
Intel, AMD	Xen, DomainU: Linux	RH 5.6, SuSe 11	Virtual machine

Table 1. SySAM Virtualization Sub-capacity Compatibility

* VMWare ESX Server excludes VMWare Workstation, and VMWare Server.

** Xen excludes Solaris x64.

Known Installation Issues

Installation issues for this version of Event Stream Processor.

CR#	Description
668057	 If you install Event Stream Processor using InstallAnywhere in the same directory as older Sybase products that also use InstallShield, uninstalling one of the products may make other products unusable because some shared components are removed by the uninstaller. On a UNIX system, install Event Stream Processor in a separate directory.
	 If you install Event Stream Processor in the same directory as older Sybase products, do not uninstall.
675054	The SySAM files are missing the writable permission if RepAgent 15.2 has been previously installed.
	Manually modify the file permissions for SySAM (\$SYBASE/SY- SAM-2_0/bin) after RepAgent 15.2 is installed, if you plan to install Event Stream Processor 5.1 into the same directory as RepAgent 15.2.
681675	When starting the SySAM license server, you may receive an error indicating failure to connect to the license server.
	This version of Sybase Event Stream Processor includes both Internet Protocol Version 4 (IPv4) and Internet Protocol Version 6 (IPv6) versions of the Sy- SAM license server software. Use the sysam configuration command to choose the version of the license server based on your environment. By de- fault, the IPv4 version of the license server is configured. This may result in an error if you have previously enabled IPv6 on the license server host.
	You can run both IPv6 and IPv4 on the same host by removing the IPv6 address from the hosts file.
716148, 716109 and 716131	Settings in a response file, generated by performing a Typical installation or by running the console installer, are not recognized when performing a silent installation.
	To work around this issue, generate a correct response file manually or by running the GUI installer and performing a Custom installation. Refer to the sample response file in the <i>Installation Guide</i> .

Table 2. Known Installation Issues

Known Issues

Learn about known issues and apply workarounds for Sybase Event Stream Processor.

Known Issues for Event Stream Processor Studio

Learn about known issues and apply workarounds for ESP Studio.

CR#	Description
682543	Deleting the key column from a named schema does not update the CCL editor. The CCL editor shows the column as a primary key and the project does not compile successfully.
	Inline schema does not cause this problem. Update the project in the CCL editor to compile successfully.
690176	When running example projects from the Learning perspective, the Stream View is empty for some streams.
	If you are running a project in the Learning perspective and you are working with a small data set, work around this issue by changing the stream view pulsed subscribe interval value to 0.
	Set the interval back to its default value of 1 before working with any other projects.
699246	When you are compiling a project through the Studio and the compiler en- counters an implicit record cast where one or more record fields will be set to null at run-time, it should generate a warning message but does not. The warning does display if you compile from the command line.
715708	The Studio incorrectly lists the HTTP output adapter with the input adapters. The adapter functions correctly as an output adapter, but is listed in the Input adapters drawer within Studio.
	To add an HTTP output adapter to your Studio diagram, select it from the Input adapters drawer and configure it as necessary for output.
717372	The ESP input adapter is available in the Studio palette. The adapter is required for internal processing, but it is not a supported adapter.
	If you want to connect to another Event Stream Processor project, use stream binding instead. For more information, see the <i>Studio Users Guide</i> .

Table 3. Studio Issues

CR#	Description
717703	Studio replaces adapter passwords with asterisks when switching from the Visual Authoring view to the text editor. It may also drop some required adapter properties.
	To work around this issue, open the adapter's cnxml file in the text editor, replace the password, and verify that all required properties are present.

Known Issues for Event Stream Processor Server

Learn about known issues and apply workarounds for the Server.

Table 4. Server Issues

CR#	Description
671971	By default, the RSA login uses the "SHA1 withRSA" signature algorithm and the "MD5" digest algorithm. If you change the signature and digester methods in the cluster configuration, make the same changes to the SIGN_ALGORITHM and DIGEST_ALGORITHM environment variables.
	For example, values for the SIGN_ALGORITHM environment variable are "SHA1withRSA" (default), "MD5withRSA", and "SHA1withDSA" (Java only). Possible values for the DIGEST_ALGORITHM environment variable are "MD5" (default) and "SHA1".
674280	Avoid using retention with input windows that use a log store. While the compiler does not flag this as an error, the retention policy on input windows that use a log store may not work as expected after recovery.
674786	In the case of the ESP Server crashing, if you have a join-based window using a log store, one source window using a log store, and another source window using a memory store and being derived from a window using a log store, the data in the join window is recovered up to the crash, but new records uploaded to the ESP Server do not get joined. When all the source windows use a log store, the same records that are uploaded to the ESP Server get joined.
675321	If you are using an external function that returns a string, do not assign this string to the arena. Otherwise, an unrecoverable error occurs when the Server later tries to release the memory used by the returned string because the memory would have already been released by the Server when the record was processed.
696040	If Event Stream Processor crashes while the Replication Server adapter is run- ning, some data may be lost when using the rs_lastcommit function.
	To work around this issue, during a controlled shut down, close the Replication Server adapter before closing Event Stream Processor.

CR#	Description
701653	The ESP compiler views the string literal "\b" as a backspace character. There- fore, CCL programs that contain \b will not compile.
	To work around this issue, use a double back slash ("\\b") for this string literal instead of a single back slash.
715362	To reduce memory consumption growth, when allocating a vector or a dictionary using 'new' that is subsequently being used as an argument to the getData() function, check for the vector already being allocated using isnull, as follows:
	<pre>if (isnull(vector_var)) vector_var = new vector() getdata(vector_var,)</pre>

Known Issues for Event Stream Processor Adapters

Learn about known issues and apply workarounds for adapters supported by Event Stream Processor.

CR#	Description
680661	The Platform Input and Platform Output adapters are not supported by Event Stream Processor. The platform_in.cnxml and plat-form_out.cnxml files are included in the install, but are for internal use only.

Table 5. Adapter Issues

CR#	Description	
684802	To use schema discovery for the Reuters Marketfeed and OMM Input adapters:	
	1. Copy the Reuters Marketfeed and OMM installation directory to your main Event Stream Processor installation under \$ESP_HOME/adapters.	
	2. Make the following changes to Configure Adapter Properties in Event Stream Processor Studio for schema discovery:	
	For Market Feed, change the value of the Property Reuters MF Data Dictionary to \$ESP_HOME/adapters/reuters/con- fig/appendix_a.	
	For OMM, change the value of the Property Reuters OMM Data Dic- tionary to \$ESP_HOME/adapters/reuters_omm/con- fig/RDMFieldDictionary.	
	3. After schema discovery in Studio, delete the adapter plug-in before saving or compiling the project. (This is because the ATTACH ADAPT-ER statement for Reuters adapters is not supported.)	
684922 and 684945	When running the Reuters OMM adapter in interactive publish mode, you may experience intermittent stability issues when connected directly to rmdstestclient (a Reuters utility bundled with their server).	
695586	When using the Database Input adapter and the getData() built-in SPLASE function in the flex stream, there is a compatibility issue between JDK7 and the JDBC driver for MSSQL (3.0.1301.101 and 4.0 CTP3). The problem occurs when mapping a datetime2 datatype into Event Stream Pro- cessor timestamp or string datatypes as the adapter executes querie such as a SELECT statement. The value that is read in is incorrect. To wor around this issue, use the SQL convert() built-in function to cast a date- time2 column into a varchar. For example, modify a SELECT state ment like this:	
	select c_bigdatetime from newalltypes	
	<pre>into this: select convert(varchar(30), c_bigdatetime, 121) from newalltypes</pre>	
	where the third argument value of 121 is the format to which the date- time2 field will be converted.	

CR#	Description
714685	You must make a few changes so that Java external adapters from Event Stream Processor 5.0 are compatible with ones from 5.1.
	 For all Java external adapters, due to changes in authentication types between versions, you can use only LDAP, RSA, or Kerberos (not ticket) authentication types if you want compatibility between 5.0 and 5.1 adapters. To make the 5.0 external FIX Input adapter compatible with the 5.1 version, add the maxPubPoolSize parameter to the 5.0 file connectors configuration files. This property was optional in 5.0 but is required in 5.1. If you want to start the 5.0 external FIX Input adapter with the 5.1 configuration file, remove the inputBuffer property from the 5.1 configuration file as this property is not valid in 5.0.
715027	 A custom internal adapter that was written using the 5.1 version of the GenericAdapterInterface. h file is not compatible with an adapter that was written using the 5.0 version. To make these adapters compatible in 5.0, change the following function signatures for these files to the 5.1 version: change int getTotalRowsProcessed(void*) to int64_t getTotalRowsProcessed(void*) change int getNumberOfBadRows(void*) to int64_t
	<pre>getNumberOfBadRows(void*) • change int getNumberOfGoodRows(void*) to int64_t getNumberOfGoodRows(void*)</pre>
715811	When the peer program publishing to the adapter does not close its socket connection cleanly the adapter's state becomes DEAD and it no longer accepts connections.
	To avoid this issue, ensure that the publisher issues a "close" on the socket connection before exiting.
716339	The CSV Input adapter does not process the last line of the CSV input file. To ensure that all data in the file is processed, add an empty line at the end of the file.
716733	When using the ASE and IQ Output adapters, if the window to which the adapter is connected has multiple columns in its primary key, the adapter may not process deletes correctly. To work around this issue, attach the adapter to a window that has only one column in its primary key.

CR#	Description
716843	If you stop the Database Input adapter while it is reading data and then start it again, the adapter does not start and therefore, does not complete reading data.
	To work around this issue, restart the ESP Server, and if you did not con- figure the adapters to start automatically, then manually start the Database Input adapter.
716844	If you drop the table that the Database Input adapter is polling data against, the adapter crashes.
	To work around this issue, restart the ESP Server, and if you did not con- figure the adapters to start automatically, then manually start the Database Input adapter.
717862	To use an adapter with ESP, you must set the <i>JAVA_HOME</i> environment variable to the location where you have installed Java 1.7 in the SYB-ASE.sh file.

Known Issues for Migration

Learn about known issues for migration and the esp_aml2ccl utility.

Table 6. Migration Issues

CR#	Description
684802	The esp_aml2ccl utility converts money into money(4) by default. Man- ually replace all money(4) instances with money in the .ccx file.

Known Issues for CCL

Learn about known issues and apply workarounds for CCL.

Table 7. CCL Issues

CR#	Description
657188	The power() function can process only NULL values of float type.

Known Issues for SPLASH

Learn about known issues and apply workarounds for SPLASH.

CR#	Description
662913	You can globally define dictionary and vector data structures; however, limit global use to reading them. Only one stream should write to a dictionary or vector data structure; while that stream is writing, no other stream should write to or read from that data structure. The underlying objects used to manage the global dictionary or vector data structures are not thread-safe. A stream must have exclusive access to the global dictionary or vector data structure while writing. Allowing other streams to access these data structures while one stream is writing may result in server failure.
	Additionally, limit the use of these data structures to relatively static data (such as country codes) that are read by multiple streams, but that will not need to be updated during processing. Writing the data to the dictionary or vector must be completed before any streams read it.
	All operations that read a global dictionary or vector should perform an isnull check, as shown here:
	<pre>>typeof(streamname) rec := dict[symbol]; if(not (isnull(rec)) { // use rec }</pre>
693571	SPLASH lets you define "record event" variables such as:
	[integer key1; integer d1; string t1;] var1;
	While you can conveniently reference the individual columns in "var1" using dot notation, you can only do this after the record event variable has been initialized. Once the record event has been initialized, you can access columns directly using dot notation (for example, count := var1.d1; or var1.t1 := 'Tues-day';). If you try to set column values using dot notation before initializing the record event with the bracket notation, the compiler will not flag an error, but the record will not yet exist and the assignment will fail.

Table 8. SPLASH issues

CR#	Description
717875	Defining a collection object inside a while loop and assigning it dynamically using the new call can cause the server to crash. To prevent this, define the collection object outside of the while loop. For example, instead of defining the vector "save" inside the while loop
	<pre> while (a < 5) { vector(int64) save := rmWaitMap[SourceStreaml.New- Column2]; if (isnull(save)) { save := new vector(int64); } }</pre>
	define it outside of the while loop
	<pre> vector(int64) save; while (a < 5) { save := rmWaitMap[SourceStream1.NewColumn2]; if (isnull(save)) { save := new vector(int64); } }</pre>

Known Issues for SCC

Learn about known issues and apply workarounds for SCC.

Table 9. SCC Issues

CR#	Description
714997	In the online help in SCC, the "Sybase Control Center for Event Stream Processor" link in the right pane of the home page does not work.
	To work around this issue, use the "Sybase Control Center for Event Stream Processor" link in the left pane instead.

Documentation Changes

Read about updates, corrections, and clarifications to the documentation released with Sybase Event Stream Processor.

CR#	Description
N/A	The section on the JMS adapter shows you how to configure a queuing system for the JMS adapter. It should also mention that, to run the adapter, you must obtain and place vendor specific JMS jar files in the \$ESP_HOME/java folder and restart the Server.
716766	The documentation incorrectly states the support provided for .NET as ".NET (C#, Visual Basic, and so on)." It should say: .NET (C#) This correction applies to <i>Custom Adapters</i> in the <i>Adapters Guide</i> and the <i>Studio</i> <i>Users Guide</i> , and to <i>What You Can Do with Sybase Event Stream Processor</i> in the <i>Getting Started Guide</i> .
717192	The description for the DB Service Name property in the ASE Output adapter section states that only Open Client [™] connections are supported. It should also state that an Open Client entry must be used in the service.xml file to be able to use the ASE Output adapter. See the sample service.xml file in ESP_HOME/bin for more information on this property.
717862	The RTView adapter documentation incorrectly specifies version 1.6 of Java; it should be version 1.7.

Table 10. Documentation Changes for the Adapters Guide

CR#	Description
680686	The guide should state:
	When you create a duplicate named window or stream in the Visual Editor, then save your file and switch to the Text Editor, a third duplicate of the original stream or window is created. You can see this third duplicate only when you switch back to the Visual Editor.
	Remove this third duplicate:
	1. In the Visual Editor, click Remove all shapes from diagram ^(S) to clear out all the shapes.
	2. Click Add all shapes 🛨 to get the original stream or window and the second duplicate stream or window back.
	3. Give the duplicate stream window a unique name.
682387	To redeploy a project after making changes to a running project:
	1. From the Authoring perspective, compile a project and start it.
	2. In the Run-Test perspective, do some work with the project.
	3. Stop the project.
	4. In the Authoring perspective, make changes to the project and the start it.
	An error displays and the Run-Test console states that a failure occurred because the application already exists. This is because the project still exists on the server
	in a stopped state.
	5. To redeploy, remove the project from the Run-Test server view, and then start the new version from the Authoring perspective.

Table 11. Documentation Changes for the Studio Users Guide

Table 12. Documentation Changes for the CCL Programmers Guide

CR#	Description
643882	Delta streams are allowed key transformation only when performing aggregation, join, or flex operations. Because a delta stream does not maintain state, you cannot define a delta stream on a window where the keys differ.

CR#	Description
682458	There are undocumented restrictions on user name and password credentials for the interactive mode of the esp_cluster_admin tool. Credentials may contain alpha numeric characters but must always start with an alphabetic character. For example, password 12345678 is invalid, whereas P12345678 is valid.
682913	References to the "port number used by your Event Stream Processor installation" are referring to the port number of your cluster cache.
717192	 The <i>External Database Access</i> section should include information about using Open Client connections to connect to Adaptive Server Enterprise with the ASE Output adapter. You can only use Open Client connections with this adapter. The DriverLibrary parameter for Open Client connections to Adaptive Server Enterprise should be esp_db_ocs_lib. The connection block below is from the sample service.xml file in the ESP_HOME/bin directory that is provided with Event Stream Processor.
	<pre><!-- ONLY MEANT TO BE USED WITH ASE OUTPUT ADAPTER--></pre>

 Table 13. Documentation Changes for the Administrators Guide

Table 14. Documentation Changes for the Utilities Guide

CR#	Description
682458	There are undocumented restrictions on user name and password credentials for the interactive mode of the esp_cluster_admin tool. Credentials may contain alpha numeric characters but must always start with an alphabetic character. The document also provides an invalid sample password of 1234 .

Obtaining Help and Additional Information

Use the Sybase Getting Started CD, Product Documentation site, and online help to learn more about this product release.

- The Getting Started CD (or download) contains release bulletins and installation guides in PDF format, and may contain other documents or updated information.
- Product Documentation at *http://sybooks.sybase.com/* is an online version of Sybase documentation that you can access using a standard Web browser. You can browse documents online, or download them as PDFs. In addition to product documentation, the Web site also has links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, Community Forums/Newsgroups, and other resources.
- Online help in the product, if available.

To read or print PDF documents, you need Adobe Acrobat Reader, which is available as a free download from the *Adobe* Web site.

Note: A more recent release bulletin, with critical product or document information added after the product release, may be available from the Product Documentation Web site.

Technical Support

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If your organization has purchased a support contract for this product, then one or more of your colleagues is designated as an authorized support contact. If you have any questions, or if you need assistance during the installation process, ask a designated person to contact Sybase Technical Support or the Sybase subsidiary in your area.

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Get EBFs and maintenance reports from the Sybase Web site or the SAP® Service Marketplace (SMP). The location you use depends on how you purchased the product.

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 - b) Select **Support > EBFs/Maintenance**.
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 - d) (Optional) Select a filter, a time frame, or both, and click Go.
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- For partner product certifications, go to http://www.sybase.com/detail_list?id=9784
- For platform certifications, go to http://certification.sybase.com/ucr/search.do

Creating a MySybase Profile

MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

- 1. Go to *http://www.sybase.com/mysybase*.
- 2. Click Register Now.

Accessibility Features

Accessibility ensures access to electronic information for all users, including those with disabilities.

Documentation for Sybase products is available in an HTML version that is designed for accessibility.

Vision impaired users can navigate through the online document with an adaptive technology such as a screen reader, or view it with a screen enlarger.

Sybase HTML documentation has been tested for compliance with accessibility requirements of Section 508 of the U.S Rehabilitation Act. Documents that comply with Section 508 generally also meet non-U.S. accessibility guidelines, such as the World Wide Web Consortium (W3C) guidelines for Web sites.

Note: You may need to configure your accessibility tool for optimal use. Some screen readers pronounce text based on its case; for example, they pronounce ALL UPPERCASE TEXT as initials, and MixedCase Text as words. You might find it helpful to configure your tool to announce syntax conventions. Consult the documentation for your tool.

For information about how Sybase supports accessibility, see the Sybase Accessibility site: *http://www.sybase.com/products/accessibility*. The site includes links to information about Section 508 and W3C standards.

You may find additional information about accessibility features in the product documentation.

Obtaining Help and Additional Information