

FIXEdge logs format

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Format of log entries in the log file

FIXEdge logs have its own format that could be configured in [FIXEdge.properties](#):

```
Log.File.Format = %date{ISO8601} %timezone %level%tablelevel [%logger] %thread %message
```

Where:

- **%level** - prints severity level of the log record. List of possible levels:

L e v e l	Definition
T R A C E	Most detailed information. Should be used very sparingly.
D E B U G	Detailed information on the flow through the system. This log level should never be used in customer-facing environments, but many applications will log debug-level information for troubleshooting purposes
I N F O	Interesting runtime events (startup/shutdown). Expect these to be immediately visible on a console, so be conservative and keep to a minimum. This log level contains informational details and is typically not going to be acted upon by Operations
W A R N	Use of deprecated APIs, poor usage of API, 'almost' errors, other runtime situations that are undesirable or unexpected, but not necessarily "wrong". This log level contains details that can be important but is typically not going to be acted upon by Operations. Some WARN level log items may be escalated if thresholds are met
E R R O R	Other runtime errors or unexpected conditions. This log level contains important error details that must be escalated immediately to remediate failure. This should be as actionable and detailed as possible. Business-level information (e.g. "Customer login was incorrect") should not be logged at this level, but rather at the WARN level with "BUSINESS ALERT" in the message because they are not application failures.
F A T A L	Severe errors that cause premature termination. An extreme version of "ERROR"

- **%tablelevel** - prints extra spaces for vertical alignment of records after %level
- **%date{FIX}** - prints date in 'YYYYMMDD-HH:MM:SS,sss' format
- **%date{ISO8601}** - prints date in 'YYYY-MM-DD HH:MM:SS,sss' format
- **%date** - prints date in 'DD MMM YYYY HH:MM:SS,sss' format
- **%timezone** - prints time zone abbreviation or name (setup TZ env variable to take abbreviation in windows) or 'UTC'
- **%logger** - prints log category, component
- **%thread** - prints thread id
- **%thread_name** - prints a name of the thread
- **%message** - prints a message

For more information please read the article: [How to divide different categories and severities of log files into different files in the Logging section](#)

Format of event entries for transfer to ArcSight

The log transfer to ArcSight is supported since FIXEdge version 6.7.0. Log entries format must satisfy the requirements of this system (e.g. [CEF Format](#)). The log format for transfer to ArcSight can be configured in *FIXEdge.properties* file and set using patterns. The following characters can be used in the pattern:

Conversion Character	Example using	Effect																
X	%X{msg}	<p>Prints to output the value of a given runtime variable:</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Example</th> </tr> </thead> <tbody> <tr> <td>DateTimeUTC</td> <td>Universal Coordinated Time (UTC) follow standard ISO 8601 as pattern yyyy-MM-dd'THH:mm:ss.SSSZ</td> <td>2015-01-22T14:40:38.928Z</td> </tr> <tr> <td>DateTimeLocal</td> <td>Universal Coordinated Time (UTC) follow standard ISO 8601 as pattern yyyy-MM-dd'THH:mm:ss.SSS±HH:MM</td> <td>2015-01-22T08:40:38.928-06:00</td> </tr> <tr> <td>msg</td> <td>The message for AppFailed event</td> <td></td> </tr> <tr> <td>id</td> <td>The number of the signal for AppSigTermDetected event</td> <td></td> </tr> </tbody> </table>	Name	Description	Example	DateTimeUTC	Universal Coordinated Time (UTC) follow standard ISO 8601 as pattern yyyy-MM-dd'THH:mm:ss.SSSZ	2015-01-22T14:40:38.928Z	DateTimeLocal	Universal Coordinated Time (UTC) follow standard ISO 8601 as pattern yyyy-MM-dd'THH:mm:ss.SSS±HH:MM	2015-01-22T08:40:38.928-06:00	msg	The message for AppFailed event		id	The number of the signal for AppSigTermDetected event		
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E	%E{ENV1}	<p>Used to output the value of a given environment variable. The name of is supplied as an argument in brackets. The empty string will be used if the variable does exist.</p> <p>For example, the pattern E{HOME} will output the contents of the HOME environment variable.</p> <p>Also can be used Additional Environment Variables of FIXEdge:</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Example</th> </tr> </thead> <tbody> <tr> <td>.AppName</td> <td>application name</td> <td>FIXEdge</td> </tr> <tr> <td>.AppVersion</td> <td>application version</td> <td>6.7.0</td> </tr> <tr> <td>.AppRevision</td> <td>application revision</td> <td>67</td> </tr> </tbody> </table>	Name	Description	Example	.AppName	application name	FIXEdge	.AppVersion	application version	6.7.0	.AppRevision	application revision	67				
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%%		Transforms the sequence of "%" symbols to a single percent sign %.																

An example of setting the pattern for generating **AppStarting** event logs in **CEF Format**:

Pattern	Header									Extensions
	<i>Header parts should be separated with "/" symbol</i>									
	Timestamp	CEF version	Device vendor	Device Product	Device Version	Device Event Class ID	Name	Severity		
AppStarting event	%X{DateTimeMSUTC}	CEF:0	EPAM	FixEdge	%E{AppVersion}	AP01	application starting	INFO	cs1=APP-STARTING externalID=0	
	<p>Pattern : %X{DateTimeMSUTC} CEF:0 EPAM FixEdge %E{AppVersion} AP01 application starting INFO cs1=APP-STARTING externalID=0</p> <p>Example resulting message: 2018-08-28T10:22:38.254Z CEF:0 EPAM FixEdge 6.7.0 AP01 application starting INFO cs1=APP-STARTING externalID=0</p>									

For more information please read the articles:

- [How to configure forwarding FIXEdge lifecycle events to ArcSight](#)
- [Logging for lifecycle FIXEdge events](#)