# How to debug the Appeon application

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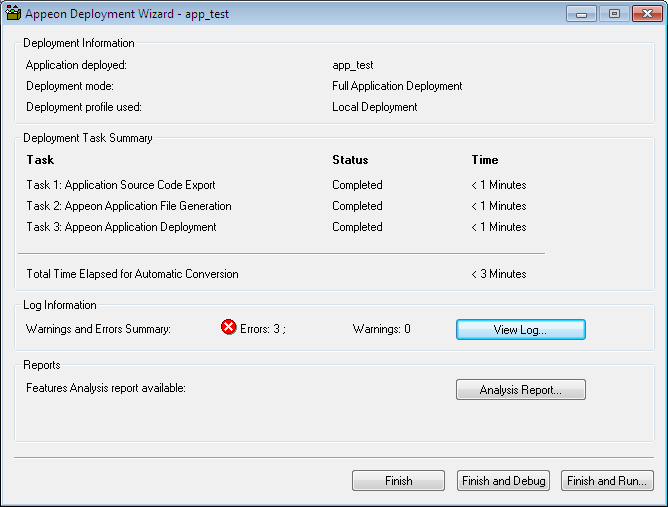
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## 1 Appeon Developer deploy issue

### 1.1 Resolve the issue in the log

### If you run into issues during the process of the deployment via Appeon developer, the deploy log will be generated. After the deployment is completed you can click *View Log…* to look into the issue.



For example, if the error log as below is generated:

14:54:59 00005: Failed to parse the source code. Line: 2

14:54:59 Failed to parse Structure str\_basic.

14:55:01 03002: File C:\Program Files\Appeon\Developer2013\Project\app\_test\debug\WCODE\tmp\str\_basic.js is not found.

It is seen from the error log that the Appeon developer run into the problems when handling Sturcture str\_basic . Thus you can analyze the syntax of str\_basic in PB to determine this issue.

### 1.2 Work around the unsupported feature

After resolving the issues in the error log, the next step is to view the *Analysis Report…* to work around the unsupported PB features. Here we strongly recommend you to handle the PB functionality issue with priority.

For example:

Unsupported Code:

Ss\_name = 'sss'

Line Number:

1

Location:

Open() event/function of w\_ase in storedprocedure.pbl

Unsupported Item:

Ss\_name

Type:

String

Reason:

The shared variable 'ss\_name' is unsupported

Priority:

Have to modify

Since Appeon doesn’t support the Shared variable, we advise you to use the Instance variable (simple variable, such as: string, integer) or Global variable(complex variable, such as: userobject) to work around this issue.

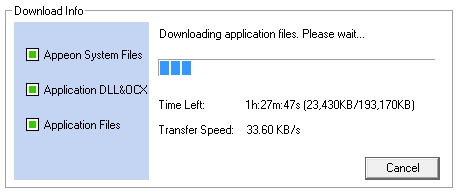
## 2 Web application can’t run in the IE browser

### 2.1 JS file failed to be downloaded

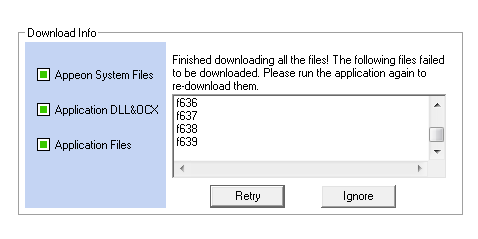
If you failed to download the JS file, please go to Welcome > Application > Client Features > [your\_application] and enable the settings as shown below under the download mode.

| **Start & Exit (Web Only)** | |
| --- | --- |
| Specifies the Web application start and exit behaviors. Please note that the “Run after download” will result in the entire Web application to be downloaded into cache, which increases the initial download time. | |
| Allow user to select run mode: | Yes No |
| Default run mode: | Run nowRun after download |

Below is the file downloading progress.



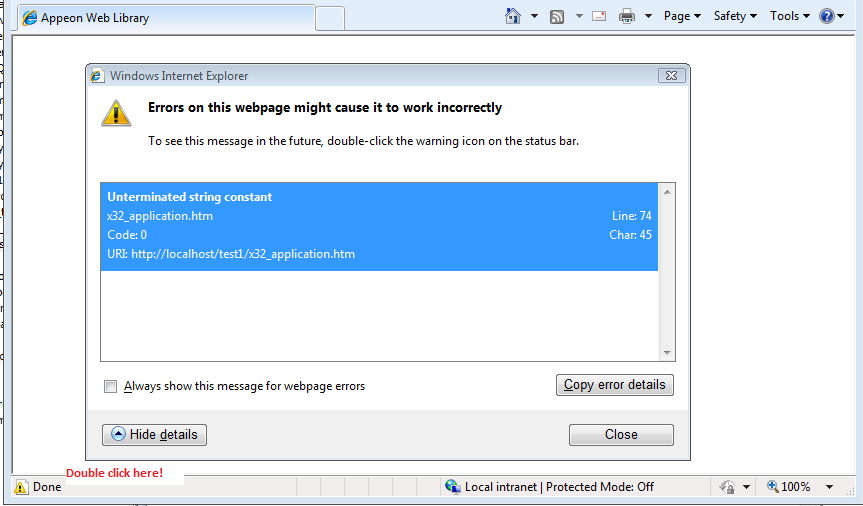
You will get the following error message to point out which files failed to be downloaded.



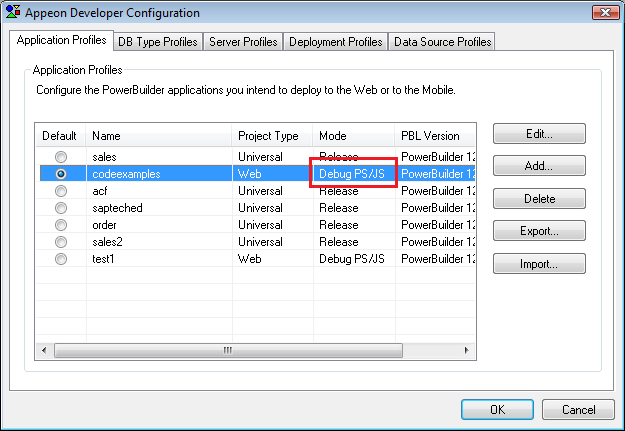
In this case, you can try to access the entire path that runs into problem with IE to see if it can be downloaded. Or you can use the Fiddler software to monitor and determine the specific error message relating to http(s).

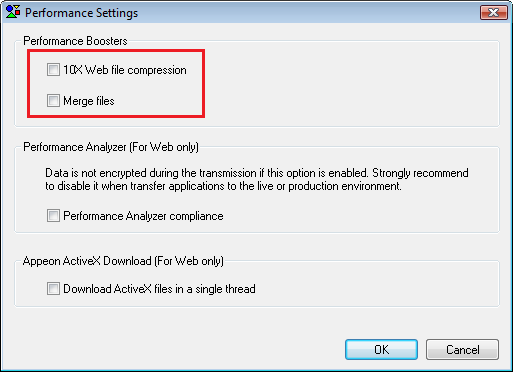
### 2.2 JS file experienced the syntax error

If the generated JS file by the Appeon Developer experienced the syntax error.



Please use the Debug PS/JS mode (you can set it in the Appeon Developer Configuration> Application Profiles) and uncheck the “10X Web file compression” and “Merge files” options in the Performance Settings window, and then redeploy the application.





After that, please go to the application.js file in the web directory by referring to the suggestive error line by IE, and then use the text tool to open this file to find out the corresponding codes.

For example:

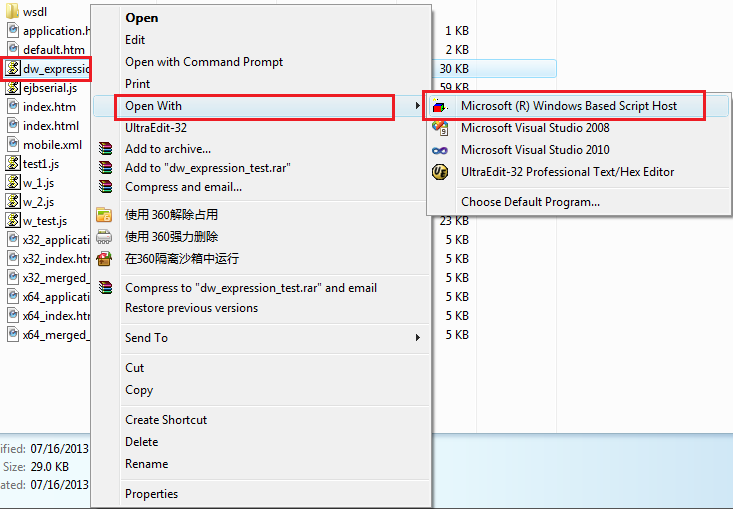
//Pb Code: li\_rtn = pos(ls\_name, "~\")

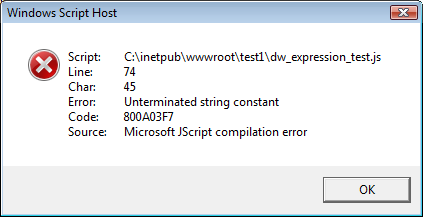
Li\_rtn = PB.Integer(PB.Pos(Ls\_name, "\"));

The correct JavaScript syntax show be as follows:

Li\_rtn = PB.Integer(PB.Pos(Ls\_name, "\\"));

Or, you can delete the first line in the application.js file and then use the Microsoft (R) Windows Based Script Host to determine the JavaScript syntax error.





You can try to figure out the issue after determining the PB code line that causes the error, if the issue cannot be resolved, please send the related codes to [support@appeon.com](mailto:support@appeon.com) to ask for help.

## 3 The approaches to debug the web application

### 3.1 Use the Appeon logs to debug the application

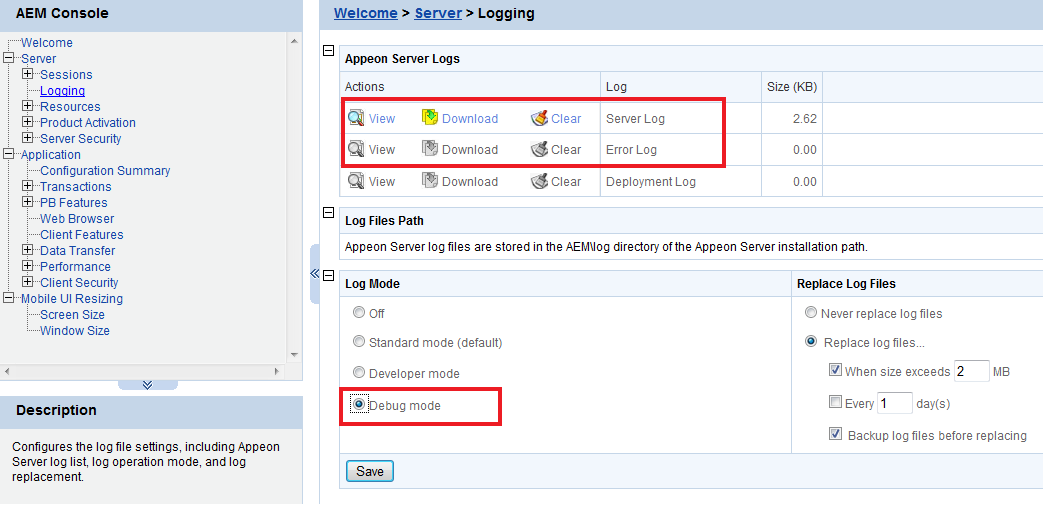
If the issue is relating to the database functionality like E-SQL, Datawindow and so on, you can debug the issue to find out the root cause by means of the AppeonServer.log and AppeonError.log files combining with the PB codes.

Step 1 - Clear off the previous appeonserver.log and appeonerror.log files in AEM.

Step 2 - Set the log mode to "Debug Mode" in AEM.

Step 3 - Reproduce the issue, the new logs will record the error.

On the basis of the time and key words in the error logs, you can find out the specific codes executed on the Appeon server in the appeonserver.log file, so that you can do search via the search engine on internet to seek the solution.

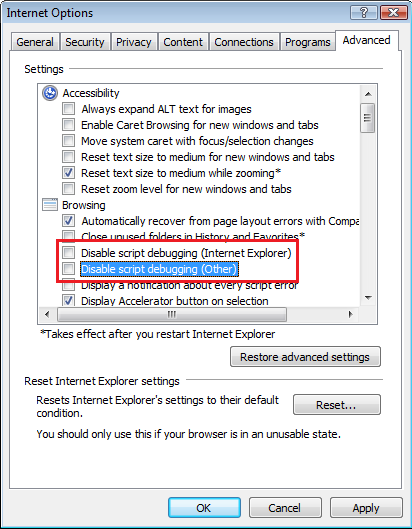


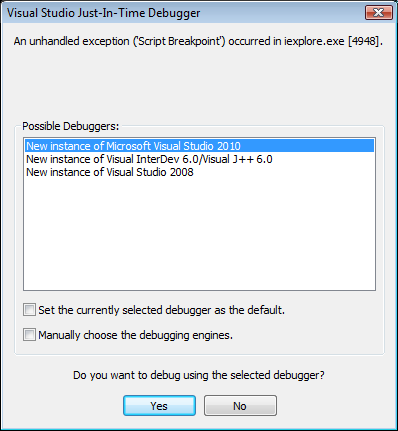
### 3.2 Use the Appeon Developer debug tool to debug the application

For details, please refer to the Appeon Help | Appeon Developer User Guide | Debugging Appeon Web Applications.

### 3.3 Use the Visual Studio to debug the application

After installing the Visual Studio Express version, firstly please make sure Disable script debugging (Internet Explorer) option is unchecked and add the debugbreak() function into the PB codes, then IE will automatically load the Visual Studio after deploying the application.





You can use the PS/JS debug mode to determine which PB codes cause the issue and then try to figure it out. If the issue cannot be resolved, please send the related codes to [support@appeon.com](mailto:support@appeon.com) to ask for help.

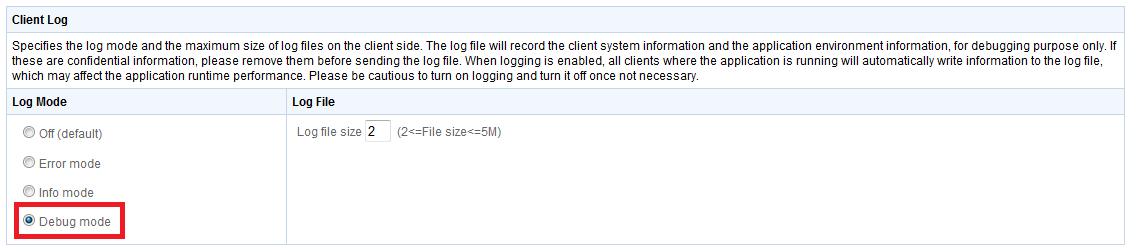
### 3.4 Use the Appeon client log to debug the application

1. Add appeon\_workaround.pbl into your PBT.

2. Modify your PB codes to call of\_log, of\_clearlog function of eon\_logex object in your application to write or clear the Appeon client log files.

3. Set the Appeon client log mode in AEM.

Go to the Welcome > Application > Client Features > [your\_application] and complete the settings as below under the download mode.



When you run the Appeon web application URL, the **appeonclient.log** will be created under the path (by default, the path is C:\Users\your\_login\_name\AppData\Roaming\appeon\your\_application\log) that you set for the Client Storage Location (Web Only) in AEM.

Below is an example of what the client log records. From this log file:

1. we can judge if the sequence of the events is correct or not;
2. we can determine which PB codes cause this issue on the basis of the log;
3. we can get to know which code is time-consuming and if any function or event is repeatedly executed on the basis of the timestamp in the log. That information is especially helpful for us to determine the performance issues.

2013-07-18 13:29:19.085 [INFO] Server Type: .NET

2013-07-18 13:29:19.101 [INFO] Client version info:6.6.0188.00

2013-07-18 13:29:19.101 [INFO] IE info: MSIE 8.0

2013-07-18 13:29:19.101 [INFO] 64Bit Browser:NO

2013-07-18 13:29:19.101 [INFO] Client OS: Windows NT 6.1

2013-07-18 13:29:22.201 [DEBUG] Enter Event constructor() of dw\_group in w\_main\_frame

2013-07-18 13:29:22.201 [DEBUG] Leave Event constructor() of dw\_group in w\_main\_frame

2013-07-18 13:29:22.201 [DEBUG] Enter Event constructor() of dw\_examples in w\_main\_frame

2013-07-18 13:29:22.201 [DEBUG] Leave Event constructor() of dw\_examples in w\_main\_frame

2013-07-18 13:29:22.201 [DEBUG] Enter Event open() of w\_main\_frame in w\_main\_frame

2013-07-18 13:29:22.201 [DEBUG] Enter Function of\_showscroll\_pic(boolean) of w\_main\_frame in w\_main\_frame

2013-07-18 13:29:22.231 [DEBUG] Leave Function of\_showscroll\_pic(boolean) of w\_main\_frame in w\_main\_frame

2013-07-18 13:29:22.231 [DEBUG] Leave Event open() of w\_main\_frame in w\_main\_frame

…….