



EZMCOM User Behavior Analytics Web JavaScript Client Integration

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User Behavior Analytics Web JavaScript Client Integration

Document Scope And Intended Audience

The intended audience of this document is HTML/web developers who wish to integrate User Behavior Analytics script into web application page. Once integrated, the script should do the capturing of the user typing behavior on UBA enabled input fields.

The document will cover the steps of Javascript integration into the said HTML page.

It is assumed that the intended audience should has basic knowledge on HTML/Javascript coding.

Integration Steps

This section describes how to integrate User Behavior Analytics JavaScript into the login page.

1. Include the EzUBAnalytics script file in your login HTML. For an example:

```
<!-- Include the EZMCOM UBA script file -->  
<script src="./js/ezuba.min.js"></script>
```

NOTE: Please change the highlighted path accordingly based on your web application directory structure and the location of the script file.

2. Initialize the script in your Javascript tag. For an example:

```
<script type="text/javascript">  
  // @param offsetFlag Optional. Only if provide true, it will offset the  
  //                               char code.  
  // @param sessionId Optional. If not provided or provide null,  
  //                               it creates internal session Id.  
  // EzUBAnalytics.init();  
  EzUBAnalytics.init();  
</script>
```

It is a must to call this to initialize the EzUBAnalytics script engine.

3. Bind the input field DOM element. Call this to bind and register the EzUBAnalytics on textbox that you wish to have UBA enabled. For an example:

```
<script type="text/javascript">
  // @param element Mandatory. It is the DOM element of textbox
  //                               for which to run UBA evaluation.
  // EzUBAnalytics.bind(element);
  EzUBAnalytics.bind(document.getElementById("inputPassword"));
</script>
```

NOTE: Please change the highlighted value accordingly, as per your password input HTML field id.

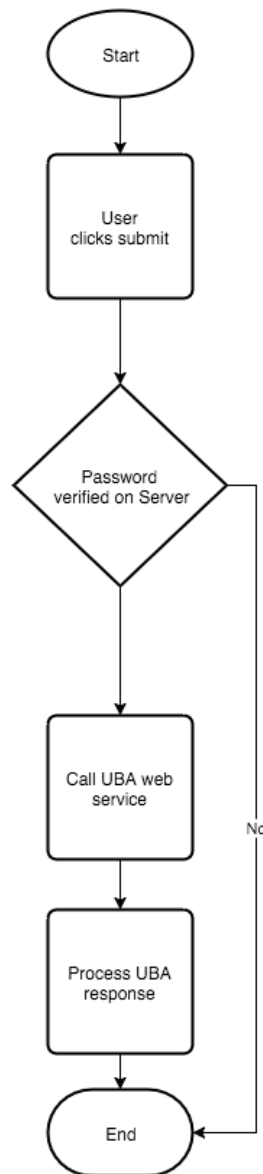
4. Capture the analytics data. Call this when you ready to capture the UBA JSON data. For an example: upon login form submit or on click event of login form Submit button.

```
<script type="text/javascript">
  // @param elEva Mandatory. It is the DOM element of textbox
  //                               for which you would like to extract it UBA JSON
  //                               data.
  // @param elDes Optional. It is the DOM element of textbox or
  //                               textarea for which you would like to output the
  //                               UBA JSON data. If not provided or provide null.
  //                               The result will be returned from this function only.
  // EzUBAnalytics.ubaJson(elEva, elDes);
  EzUBAnalytics.ubaJson(document.getElementById("inputPassword "),
  document.getElementById("inputUBAData"));
</script>
```

NOTE: Please change the highlighted values accordingly, as per your password input HTML field id, and the hidden input field id, which to store the UBA JSON data.

5. You will need to add code to send the data in inputUBAData (from the js) and extract it in the server side (most likely as a hidden form field), this step requires customization and varies based on the technology stack being used.
6. The UBA web service must NOT be called from the browser.

If it is being applied to a password field it must be called only if the password is verified correct.



7. Call the Ezmcom UBA web service using the data extracted in step 5.

Name	ScoreAndUpdate	
HTTP Method	POST	
URL	/uba/v1/apiKey/{apiKey}/accounts/{accountName}/profiles/{profileName}/scoreAndUpdate	
	apiKey	The api key provided by EZMCOM
	accountName	Unique username for the user
	profileName	Unique profile associated with the user, there must be a single unique profile name for each string that needs to be evaluated by UBA. Recommend to use the HTML input field ID for this value.
HTTP Headers	Content-Type	application/json
	Accept	application/json
Body	The data generated in the Javascript portion that is extracted on the server side	

Sample request body (this is the uba data generated in the js)

```
{
  "v": 1,
  "ts": 1442459911036,
  "fn": 0,
  "sid": "fo83qbty9tqpvicljlbailfzplj714imn",
  "d": [[0, 1442459897696, 70], [1, 1442459897807, 70], [0,
1442459897880, 79], [1, 1442459897968, 79], [0, 1442459898072, 79],
[1, 1442459898176, 79], [0, 1442459898203, 66], [1, 1442459898312,
66], [0, 1442459898376, 65], [0, 1442459898529, 82], [1,
1442459898568, 65], [1, 1442459898656, 82]],
  "h":
"c3ab8ff13720e8ad9047dd39466b3c8974e592c2fa383d4a3960714caef0c4f4",
  "ua": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_10_5)
AppleWebKit/537.36 (KHTML, like Gecko) Chrome/45.0.2454.85
Safari/537.36"
}
```

Sample response body (Training)

```
{
  "transactionId": "616c8725-ea0e-4d29-938e-0cd98fa0ec05",
  "timestamp": 1449651691582,
  "date": "2015-12-09T09:01Z",
  "additional_elements": {
    "score": "0.0",
    "training": "0",
    "attempt": "1"
  }
}
```

Sample response body (Training Completed)

```
{
  "transactionId": "15d96f87-0bd4-4aec-b0cf-1049bac3a91f",
  "timestamp": 1449651691582,
  "date": "2015-12-09T09:01Z",
  "additional_elements": {
    "score": "0.9972375690607737",
    "consecutiveFailureCount": "0",
    "training": "1",
    "threshold": "0.9962597105000737",
  }
}
```

Response fields	
transactionId	Unique transaction identifier
timestamp	Epoch time in milliseconds
date	Human readable date (yyyy-MM-dd'T'HH:mmX)
score	Calculated confidence score ranging from 0 (low confidence) to 1 (high confidence)
consecutiveFailureCount	The consecutive count of score falling below the threshold. This counter will reset to 0 once the user gets a score higher than the threshold.
training	0 indicates the user profile is in training 1 indicates the user profile has been trained
threshold	This value is calculated based on the user's training. Attempts scoring below this value should be considered as unlikely originating from the same user who performed the training.

