TEALIUM

Universal Data Object Guide
Version 1.8

Examples and Best Practices

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The purpose of this document is to describe what the Universal Data Object is and what it does. Included are guidelines for developing Universal Data Object variables, best practices for implementing a Universal Data Object, and examples of a Universal Data Object for a variety of page types.

The Universal Data Object

The Universal Data Object (UDO) is a JavaScript variable object called 'utag_data' in which you place variables that store data for your webpages. It is important to determine what data you want to capture for each page type (home pages, search pages, product pages, etc.) and make certain the appropriate variables are contained within the UDO. The UDO is the source of much of the data Tealium sends to the tags of your third-party vendors.

UDO Variable Guidelines

When developing your UDO variables, there are certain guidelines to follow in order to avoid errors or inconsistencies in your implementation and to conform to JavaScript and Tealium formats.

Double Quotation

Make sure values for a variable are surrounded by double quotes. JavaScript will not try to interpret any special characters contained within double quotes.

```
page_type    : "cart"
```

Commas

All variables must be separated from each other by comma. However, the last variable of the UDO does not require a comma next to it.

```
product_id   : "123",
product_name : "socks"
```

No spaces

Spaces (also called whitespaces) are not allowed between the words of a variable's name. You may use the '_' (underscore) character instead.

Array format for multiple values

When a variable contains more than one value, enclose the values in a pair of square brackets to form an array. Make certain each element of the array is surrounded by its own set of double quotes.

```
product_id   : ["12","13","14"]
```

No extra code

Do not add code to the UDO script block. If the additional code fails, then the rest of the data object is skipped which, in turn, can cause Tealium's code to fail.

Empty variables

If a variable does not contain any value(s), do NOT set it to 'null'. Instead, set it with empty quotations or square brackets for an empty array. Or you may choose not to list the variable at all.

```
product_id   : []
```

Note: *Also see Common Errors in implementing a UDO.*

Example UDO

Below is an example of a properly formatted UDO. Notice the variables expecting multiple values are in an array format and have square brackets surrounding the double quotes.

```
<script type="text/javascript">
  var utag_data={
      site_region              : "eu",                  // site's region
      site_currency            : "EUR",                 // site's currency
      site_search_results      : "18",                  // number of results for site
      site_search_keyword      : "keyword",             // keyword(s) entered by user
      page_name                : "order",               // page name
      page_type                : "order",               // type of page being viewed
      page_section_name        : "Men's",               // section of page being viewed
      page_category_name       : "Sports",              // category of page being viewed
      page_subcategory_name    : "Clothing",            // subcategory of page being viewed
      product_id               : ["12","13"],           // unique product identifier(s)
      product_sku              : ["1234","5678"]        // unique sku identifier(s)
      product_name             : ["Shorts","Socks"],    // name of product(s)
      product_brand            : ["Nike","Nike"],       // brand of product(s)
      product_category         : ["Shorts","Socks"],    // category name of product(s)
      product_quantity         : ["1","1"],             // quantity purchased of product(s)
      product_unit_price       : ["15.99","9.99"],      // unit price of product(s), 9.99
      product_list_price       : ["59.00",""],          // list price of product(s), 59.00
      product_discount         : ["0","1.00"],          // discount on product(s), 0.99
      order_id                 : "334425",              // unique order identifier
      order_subtotal           : "24.98",               // subtotal amount of order, 24.98
      order_shipping_amount    : "5.00",                // shipping amount of order, 5.00
      order_tax_amount         : "0.90",                // tax amount of order, 0.90
      order_payment_type       : "visa",                // type of payment used on order
      order_discount_amount    : "0.99",                // discount given on order, 0.99
      order_total              : "29.89",               // total amount of order, 29.89
      order_currency           : "EUR",                 // currency used in order
      customer_id              : "444555",              // unique customer identifier
      customer_type            : "preferred"            // type of customer
  };
</script>
```

UDO Best Practices

Performance Considerations: Include Variables and Exclude Comments

When developing a UDO, only include the variables pertinent to that page type and exclude comments, unless the name of the variable does not describe it sufficiently. This reduces the page code size. Below is an example of a search page's UDO that includes only page– and search–related variables but no comments.

```
<script type="text/javascript">
  var utag_data={
      page_name         : "results",
      page_type         : "search",
      search_results    : "60",
      search_keyword    : "Shorts"
  };
</script>
```

UDO Values

Product Arrays

Product variables with multiple values should be declared as arrays. Below is a product ID variable with three product IDs.

```
//..
product_id  : ["product1","product2","product3"]
//..
```

Product Alignment

Variable values should align between the elements of product variables' arrays. The first element of each array must correspond to the first element of the other arrays. In the example below, notice the information for product 1, such as the ID, the quantity, and the price are all the first element of each array.

```
//..
product_id         : ["product1","product2","product3"],
product_quantity   : ["product1_qty","product2_qty","product3_qty"],
product_price      : ["product1_price","product2_price","product3_price"]
//..
```

UDO Placement

Place your UDO code between the opening <body> tag of the page's HTML and the utag.js file. An HTML snippet of a full implementation will look something like this:

```html
<html>
<head>
  <title>Universal Tag Sample HTML Page</title>
</head>
<body>
  <script type="text/javascript">
    var utag_data = {
       page_name          : "sample page_name value",
       page_type          : "sample page_type value",
       search_keyword     : "sample search_keyword value",
       search_results     : "sample search_results value"
    }
  </script>
  <script type="text/javascript">
      (function(a,b,c,d){
      a='//tags.tiqcdn.com/utag/youraccount/yourprofile/prod/utag.js';
            b=document;c='script';d=b.createElement(c);d.src=a;
            d.type='text/java'+c;d.async=true;
            a=b.getElementsByTagName(c)[0];a.parentNode.insertBefore(d,a);
      })();
  </script>
  <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit,
  sed do eiusmod tempor incididunt ut labore et dolore magna
  aliqua.</p>
</body>
</html>
```

UDO Naming Considerations

Extension Variables

Some Extensions in Tealium iQ provide variables for automatically sending data to Vendor Tags. Do not use these variables in your UDO. For example, the E-Commerce Extension creates variables that start with '_c'. Avoid naming conventions that use '_c' with variables when developing your UDO.

UDO Examples

Below are examples of the UDO for different page types.

Home Page

```
<script language="JavaScript" type="text/javascript">
  var utag_data={
            site_region          : "uk",
            site_currency        : "GBP",
            page_name            : "Home",
            page_type            : "home"
  };
</script>
```

Search Results Page

```
<script language="JavaScript" type="text/javascript">
  var utag_data={
            site_region          : "uk",
            site_currency        : "GBP",
            page_name            : "results",
            page_type            : "search",
            search_results       : "234",
            search_keyword       : "shorts"
  };
</script>
```

Category Page

```
<script language="JavaScript" type="text/javascript">
  var utag_data={
            site_region              : "uk",
            site_currency            : "GBP",
            page_name                : "shorts",
            page_type                : "category",
            page_section_name        : "Men's",
            page_category_name       : "Clothing",
            page_subcategory_name    : "Shorts"
  };
</script>
```

Product Page

```
<script language="JavaScript" type="text/javascript">
  var utag_data={
      site_region            : "uk",
      site_currency          : "GBP",
      page_name              : "Dr. Denim Chase Check Cargo Short",
      page_type              : "product",
      page_section_name      : "Men's",
      page_category_name     : "Clothing",
      page_subcategory_name  : "Shorts",
      product_id             : ["5225415241111"],
      product_sku            : ["42526"],
      product_name           : ["Dr. Denim Chase Check Cargo Short"],
      product_brand          : ["Dr. Denim"],
      product_category       : ["Shorts"],
      product_unit_price     : ["11.99"],
      product_list_price     : ["59.00"]
  };
</script>
```

Cart Page

```
<script language="JavaScript" type="text/javascript">
  var utag_data={
      site_region        : "uk",
      site_currency      : "GBP",
      page_name          : "cart",
      page_type          : "checkout",
      product_id         : ["5225415241111","5421423520051"],
      product_sku        : ["42526","24672"],
      product_name       : ["Dr. Denim Chase Check Cargo Short","Renewal Denim Shirt"],
      product_brand      : ["Dr. Denim",""],
      product_category   : ["Shorts","Shirts"],
      product_quantity   : ["1","1"],
      product_unit_price : ["11.99","37.00"],
      product_list_price : ["59.00",""]
  };
</script>
```

Confirmation Page

```
<script language="JavaScript" type="text/javascript">
  var utag_data={
      site_region        : "uk",
      site_currency      : "GBP",
      page_name          : "confirmation",
      page_type          : "checkout",
      product_id         : ["5225415241111","5421423520051"],
      product_sku        : ["42526","24672"],
      product_name       : ["Dr. Denim Chase Check Cargo Short","Renewal Denim Shirt"],
      product_brand      : ["Dr. Denim",""],
      product_category   : ["Shorts","Shirts"],
      product_unit_price : ["11.99","37.00"],
      product_list_price : ["59.00",""],
      product_quantity   : ["1","1"],
      product_discount   : ["0.00","0.00"],
      order_id           : "12345678",
      order_discount     : "0.00",
      order_subtotal     : "70.99",
      order_shipping     : "10.00",
      order_tax          : "5.00",
      order_payment_type : "visa",
      order_total        : "85.99",
      order_currency     : "gbp",
      customer_id        : "12345678"
  };
</script>
```

Common Errors in Implementing a UDO

When you are building your UDO, both Tealium and JavaScript require a certain format for the variable names and their values. Here are some common missteps and errors.

Missing double quotes around variable values

✖ Wrong

```
<script type="text/javascript">
     var utag_data = {
             page_type     : purchase,
             price         : 120.99
     };
</script>
```

✔ Right

```
<script type="text/javascript">
     var utag_data = {
             page_type     : "purchase",
             price         : "120.99"
     };
</script>
```

Missing commas between variables

✖ Wrong

```
<script type="text/javascript">
     var utag_data = {
             page_type     : "purchase"
             product_id    : "234"
             price         : "120.99"
     };
</script>
```

✔ Right

```
<script type="text/javascript">
      var utag_data = {
            page_type: "purchase",
            product_id: "234",
            price: "120.99"
      };
</script>
```

Whitespace character in variable names

✘ Wrong

```
<script type="text/javascript">
      var utag_data = {
            page type   : "purchase",
            product_id  : "234",
            price       : "120.99"
      };
</script>
```

✔ Right

```
<script type="text/javascript">
      var utag_data = {
            page_type   : "purchase",
            product_id  : "234",
            price       : "120.99"
      };
</script>
```

Multiple values not formatted as Array

✖ Wrong

```
<script type="text/javascript">
     var utag_data = {
            page_type: "cart",
            product_id: "123","456",
            price: "100","200"
     };
</script>
```

✔ Right

```
<script type="text/javascript">
     var utag_data = {
            page_type: "cart",
            product_id: ["123","456"],
            price: ["100","200"]
     };
</script>
```

Empty variable set to Null

✖ Wrong

```
<script type="text/javascript">
     var utag_data = {
            page_type: "home",
            product_id: null,
            price: null
     };
</script>
```

✔ Right

```
<script type="text/javascript">
      var utag_data = {
            page_type: "home",
            product_id: [],
            price: []
      };
</script>
```

✔ Also Right

```
<script type="text/javascript">
      var utag_data = {
            page_type: "home"
      };
</script>
```

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