DataTables example Read HTML to data objects

When DataTables reads the table content from an HTML table (rather than an Ajax or Javascript data source), by default it will read the information in the table into an array that DataTables stores internally. Each array element represents a column.

It can be very useful to have DataTables read the information into an object rather than an array, an option that can be triggered using the [columns.data](http://datatables.net/reference/option/columns.data) initialisation option to define how you want the data to be stored. Typically [columns.data](http://datatables.net/reference/option/columns.data) is used with [Ajax sourced data](http://docs.google.com/ajax/objects.html) to tell DataTables where to read data from, but as can be seen here it also tells DataTables where to write the data to.

This ability to store data into an object can be very useful when working with the DataTables API after the table has been initialised.

In the example shown here, the data read from each row in the table is read into a Javascript object with the structure:

{  
 "name": "...",  
 "position": "...",  
 "office": "...",  
 "age": "...",  
 "start\_date": "...",  
 "salary": "..."  
}

Please note that this feature requires DataTables 1.10.3 or newer.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Position | Office | Age | Start date | Salary |
| Name | Position | Office | Age | Start date | Salary |
| Tiger Nixon | System Architect | Edinburgh | 61 | 2011/04/25 | $320,800 |
| Garrett Winters | Accountant | Tokyo | 63 | 2011/07/25 | $170,750 |
| Ashton Cox | Junior Technical Author | San Francisco | 66 | 2009/01/12 | $86,000 |
| Cedric Kelly | Senior Javascript Developer | Edinburgh | 22 | 2012/03/29 | $433,060 |
| Airi Satou | Accountant | Tokyo | 33 | 2008/11/28 | $162,700 |
| Brielle Williamson | Integration Specialist | New York | 61 | 2012/12/02 | $372,000 |
| Herrod Chandler | Sales Assistant | San Francisco | 59 | 2012/08/06 | $137,500 |
| Rhona Davidson | Integration Specialist | Tokyo | 55 | 2010/10/14 | $327,900 |
| Colleen Hurst | Javascript Developer | San Francisco | 39 | 2009/09/15 | $205,500 |
| Sonya Frost | Software Engineer | Edinburgh | 23 | 2008/12/13 | $103,600 |
| Jena Gaines | Office Manager | London | 30 | 2008/12/19 | $90,560 |
| Quinn Flynn | Support Lead | Edinburgh | 22 | 2013/03/03 | $342,000 |
| Charde Marshall | Regional Director | San Francisco | 36 | 2008/10/16 | $470,600 |
| Haley Kennedy | Senior Marketing Designer | London | 43 | 2012/12/18 | $313,500 |
| Tatyana Fitzpatrick | Regional Director | London | 19 | 2010/03/17 | $385,750 |
| Michael Silva | Marketing Designer | London | 66 | 2012/11/27 | $198,500 |
| Paul Byrd | Chief Financial Officer (CFO) | New York | 64 | 2010/06/09 | $725,000 |
| Gloria Little | Systems Administrator | New York | 59 | 2009/04/10 | $237,500 |
| Bradley Greer | Software Engineer | London | 41 | 2012/10/13 | $132,000 |
| Dai Rios | Personnel Lead | Edinburgh | 35 | 2012/09/26 | $217,500 |
| Jenette Caldwell | Development Lead | New York | 30 | 2011/09/03 | $345,000 |
| Yuri Berry | Chief Marketing Officer (CMO) | New York | 40 | 2009/06/25 | $675,000 |
| Caesar Vance | Pre-Sales Support | New York | 21 | 2011/12/12 | $106,450 |
| Doris Wilder | Sales Assistant | Sidney | 23 | 2010/09/20 | $85,600 |
| Angelica Ramos | Chief Executive Officer (CEO) | London | 47 | 2009/10/09 | $1,200,000 |
| Gavin Joyce | Developer | Edinburgh | 42 | 2010/12/22 | $92,575 |
| Jennifer Chang | Regional Director | Singapore | 28 | 2010/11/14 | $357,650 |
| Brenden Wagner | Software Engineer | San Francisco | 28 | 2011/06/07 | $206,850 |
| Fiona Green | Chief Operating Officer (COO) | San Francisco | 48 | 2010/03/11 | $850,000 |
| Shou Itou | Regional Marketing | Tokyo | 20 | 2011/08/14 | $163,000 |
| Michelle House | Integration Specialist | Sidney | 37 | 2011/06/02 | $95,400 |
| Suki Burks | Developer | London | 53 | 2009/10/22 | $114,500 |
| Prescott Bartlett | Technical Author | London | 27 | 2011/05/07 | $145,000 |
| Gavin Cortez | Team Leader | San Francisco | 22 | 2008/10/26 | $235,500 |
| Martena Mccray | Post-Sales support | Edinburgh | 46 | 2011/03/09 | $324,050 |
| Unity Butler | Marketing Designer | San Francisco | 47 | 2009/12/09 | $85,675 |
| Howard Hatfield | Office Manager | San Francisco | 51 | 2008/12/16 | $164,500 |
| Hope Fuentes | Secretary | San Francisco | 41 | 2010/02/12 | $109,850 |
| Vivian Harrell | Financial Controller | San Francisco | 62 | 2009/02/14 | $452,500 |
| Timothy Mooney | Office Manager | London | 37 | 2008/12/11 | $136,200 |
| Jackson Bradshaw | Director | New York | 65 | 2008/09/26 | $645,750 |
| Olivia Liang | Support Engineer | Singapore | 64 | 2011/02/03 | $234,500 |
| Bruno Nash | Software Engineer | London | 38 | 2011/05/03 | $163,500 |
| Sakura Yamamoto | Support Engineer | Tokyo | 37 | 2009/08/19 | $139,575 |
| Thor Walton | Developer | New York | 61 | 2013/08/11 | $98,540 |
| Finn Camacho | Support Engineer | San Francisco | 47 | 2009/07/07 | $87,500 |
| Serge Baldwin | Data Coordinator | Singapore | 64 | 2012/04/09 | $138,575 |
| Zenaida Frank | Software Engineer | New York | 63 | 2010/01/04 | $125,250 |
| Zorita Serrano | Software Engineer | San Francisco | 56 | 2012/06/01 | $115,000 |
| Jennifer Acosta | Junior Javascript Developer | Edinburgh | 43 | 2013/02/01 | $75,650 |
| Cara Stevens | Sales Assistant | New York | 46 | 2011/12/06 | $145,600 |
| Hermione Butler | Regional Director | London | 47 | 2011/03/21 | $356,250 |
| Lael Greer | Systems Administrator | London | 21 | 2009/02/27 | $103,500 |
| Jonas Alexander | Developer | San Francisco | 30 | 2010/07/14 | $86,500 |
| Shad Decker | Regional Director | Edinburgh | 51 | 2008/11/13 | $183,000 |
| Michael Bruce | Javascript Developer | Singapore | 29 | 2011/06/27 | $183,000 |
| Donna Snider | Customer Support | New York | 27 | 2011/01/25 | $112,000 |

* Javascript
* HTML
* CSS
* Ajax
* Server-side script

The Javascript shown below is used to initialise the table shown in this example:

$(document).ready(function() { $('#example').DataTable({ "columns": [ { "data": "name" }, { "data": "position" }, { "data": "office" }, { "data": "age" }, { "data": "start\_date" }, { "data": "salary" } ] }); } );

In addition to the above code, the following Javascript library files are loaded for use in this example:

* [//code.jquery.com/jquery-1.12.3.min.js](http://code.jquery.com/jquery-1.12.3.min.js)
* [../../media/js/jquery.dataTables.js](http://docs.google.com/media/js/jquery.dataTables.js)

The HTML shown below is the raw HTML table element, before it has been enhanced by DataTables:

This example uses a little bit of additional CSS beyond what is loaded from the library files (below), in order to correctly display the table. The additional CSS used is shown below:

The following CSS library files are loaded for use in this example to provide the styling of the table:

* [../../media/css/jquery.dataTables.css](http://docs.google.com/media/css/jquery.dataTables.css)

This table loads data by Ajax. The latest data that has been loaded is shown below. This data will update automatically as any additional data is loaded.

The script used to perform the server-side processing for this table is shown below. Please note that this is just an example script using PHP. Server-side processing scripts can be written in any language, using [the protocol described in the DataTables documentation](http://datatables.net/manual/server-side).

Other examples

[**Basic initialisation**](http://docs.google.com/basic_init/index.html)

* [Zero configuration](http://docs.google.com/basic_init/zero_configuration.html)
* [Feature enable / disable](http://docs.google.com/basic_init/filter_only.html)
* [Default ordering (sorting)](http://docs.google.com/basic_init/table_sorting.html)
* [Multi-column ordering](http://docs.google.com/basic_init/multi_col_sort.html)
* [Multiple tables](http://docs.google.com/basic_init/multiple_tables.html)
* [Hidden columns](http://docs.google.com/basic_init/hidden_columns.html)
* [Complex headers (rowspan and colspan)](http://docs.google.com/basic_init/complex_header.html)
* [DOM positioning](http://docs.google.com/basic_init/dom.html)
* [Flexible table width](http://docs.google.com/basic_init/flexible_width.html)
* [State saving](http://docs.google.com/basic_init/state_save.html)
* [Alternative pagination](http://docs.google.com/basic_init/alt_pagination.html)
* [Scroll - vertical](http://docs.google.com/basic_init/scroll_y.html)
* [Scroll - vertical, dynamic height](http://docs.google.com/basic_init/scroll_y_dynamic.html)
* [Scroll - horizontal](http://docs.google.com/basic_init/scroll_x.html)
* [Scroll - horizontal and vertical](http://docs.google.com/basic_init/scroll_xy.html)
* [Language - Comma decimal place](http://docs.google.com/basic_init/comma-decimal.html)
* [Language options](http://docs.google.com/basic_init/language.html)

[**Advanced initialisation**](http://docs.google.com/index.html)

* [DOM / jQuery events](http://docs.google.com/events_live.html)
* [DataTables events](http://docs.google.com/dt_events.html)
* [Column rendering](http://docs.google.com/column_render.html)
* [Page length options](http://docs.google.com/length_menu.html)
* [Multiple table control elements](http://docs.google.com/dom_multiple_elements.html)
* [Complex headers with column visibility](http://docs.google.com/complex_header.html)
* [Read HTML to data objects](http://docs.google.com/object_dom_read.html)
* [HTML5 data-\* attributes - table options](http://docs.google.com/html5-data-options.html)
* [HTML5 data-\* attributes - cell data](http://docs.google.com/html5-data-attributes.html)
* [Language file](http://docs.google.com/language_file.html)
* [Setting defaults](http://docs.google.com/defaults.html)
* [Row created callback](http://docs.google.com/row_callback.html)
* [Row grouping](http://docs.google.com/row_grouping.html)
* [Footer callback](http://docs.google.com/footer_callback.html)
* [Custom toolbar elements](http://docs.google.com/dom_toolbar.html)
* [Order direction sequence control](http://docs.google.com/sort_direction_control.html)

[**Styling**](http://docs.google.com/styling/index.html)

* [Base style](http://docs.google.com/styling/display.html)
* [Base style - no styling classes](http://docs.google.com/styling/no-classes.html)
* [Base style - cell borders](http://docs.google.com/styling/cell-border.html)
* [Base style - compact](http://docs.google.com/styling/compact.html)
* [Base style - hover](http://docs.google.com/styling/hover.html)
* [Base style - order-column](http://docs.google.com/styling/order-column.html)
* [Base style - row borders](http://docs.google.com/styling/row-border.html)
* [Base style - stripe](http://docs.google.com/styling/stripe.html)
* [Bootstrap 3](http://docs.google.com/styling/bootstrap.html)
* [Foundation](http://docs.google.com/styling/foundation.html)
* [jQuery UI ThemeRoller](http://docs.google.com/styling/jqueryUI.html)
* [Bootstrap 4 (Tech. preview)](http://docs.google.com/styling/bootstrap4.html)
* [Semantic UI (Tech. preview)](http://docs.google.com/styling/semanticui.html)
* [Material Design (Tech. preview)](http://docs.google.com/styling/material.html)
* [UIKit (Tech. preview)](http://docs.google.com/styling/uikit.html)

[**Data sources**](http://docs.google.com/data_sources/index.html)

* [HTML (DOM) sourced data](http://docs.google.com/data_sources/dom.html)
* [Ajax sourced data](http://docs.google.com/data_sources/ajax.html)
* [Javascript sourced data](http://docs.google.com/data_sources/js_array.html)
* [Server-side processing](http://docs.google.com/data_sources/server_side.html)

[**API**](http://docs.google.com/api/index.html)

* [Add rows](http://docs.google.com/api/add_row.html)
* [Individual column searching (text inputs)](http://docs.google.com/api/multi_filter.html)
* [Individual column searching (select inputs)](http://docs.google.com/api/multi_filter_select.html)
* [Highlighting rows and columns](http://docs.google.com/api/highlight.html)
* [Child rows (show extra / detailed information)](http://docs.google.com/api/row_details.html)
* [Row selection (multiple rows)](http://docs.google.com/api/select_row.html)
* [Row selection and deletion (single row)](http://docs.google.com/api/select_single_row.html)
* [Form inputs](http://docs.google.com/api/form.html)
* [Index column](http://docs.google.com/api/counter_columns.html)
* [Show / hide columns dynamically](http://docs.google.com/api/show_hide.html)
* [Using API in callbacks](http://docs.google.com/api/api_in_init.html)
* [Scrolling and Bootstrap tabs](http://docs.google.com/api/tabs_and_scrolling.html)
* [Search API (regular expressions)](http://docs.google.com/api/regex.html)

[**Ajax**](http://docs.google.com/ajax/index.html)

* [Ajax data source (arrays)](http://docs.google.com/ajax/simple.html)
* [Ajax data source (objects)](http://docs.google.com/ajax/objects.html)
* [Nested object data (objects)](http://docs.google.com/ajax/deep.html)
* [Nested object data (arrays)](http://docs.google.com/ajax/objects_subarrays.html)
* [Orthogonal data](http://docs.google.com/ajax/orthogonal-data.html)
* [Generated content for a column](http://docs.google.com/ajax/null_data_source.html)
* [Custom data source property](http://docs.google.com/ajax/custom_data_property.html)
* [Flat array data source](http://docs.google.com/ajax/custom_data_flat.html)
* [Deferred rendering for speed](http://docs.google.com/ajax/defer_render.html)

[**Server-side**](http://docs.google.com/server_side/index.html)

* [Server-side processing](http://docs.google.com/server_side/simple.html)
* [Custom HTTP variables](http://docs.google.com/server_side/custom_vars.html)
* [POST data](http://docs.google.com/server_side/post.html)
* [Automatic addition of row ID attributes](http://docs.google.com/server_side/ids.html)
* [Object data source](http://docs.google.com/server_side/object_data.html)
* [Row details](http://docs.google.com/server_side/row_details.html)
* [Row selection](http://docs.google.com/server_side/select_rows.html)
* [JSONP data source for remote domains](http://docs.google.com/server_side/jsonp.html)
* [Deferred loading of data](http://docs.google.com/server_side/defer_loading.html)
* [Pipelining data to reduce Ajax calls for paging](http://docs.google.com/server_side/pipeline.html)

[**Plug-ins**](http://docs.google.com/plug-ins/index.html)

* [API plug-in methods](http://docs.google.com/plug-ins/api.html)
* [Ordering plug-ins (with type detection)](http://docs.google.com/plug-ins/sorting_auto.html)
* [Ordering plug-ins (no type detection)](http://docs.google.com/plug-ins/sorting_manual.html)
* [Custom filtering - range search](http://docs.google.com/plug-ins/range_filtering.html)
* [Live DOM ordering](http://docs.google.com/plug-ins/dom_sort.html)

Please refer to the [DataTables documentation](http://www.datatables.net) for full information about its API properties and methods.

Additionally, there are a wide range of [extensions](http://www.datatables.net/extensions) and [plug-ins](http://www.datatables.net/plug-ins) which extend the capabilities of DataTables.

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