DataTables example Nested object data (arrays)

The information read from an Ajax data source can be arbitrarily complex, but still be displayed by DataTables through the [columns.data](http://datatables.net/reference/option/columns.data) option, which is particularly useful for working with JSON feeds in an already defined format.

The [columns.data](http://datatables.net/reference/option/columns.data) option has the ability to read information not only from objects, but also from arrays using the same dotted object syntax as for objects. In addition to this, when working with an array data source [columns.data](http://datatables.net/reference/option/columns.data) can process the data to combine and display the data in simple forms (more complex forms can be defined by using [columns.data](http://datatables.net/reference/option/columns.data) as a function).

This example shows two different aspects of using [columns.data](http://datatables.net/reference/option/columns.data) to read arrays:

* The *Name* column is sourced from an array of two elements (first and last name), which are automatically concatenated together. This is done by using array bracket syntax, with the characters between the brackets being used as the glue between elements (e.g. name[, ]).
* The *Position*, *Start date* and *Salary* columns are read directly from array elements using dotted object notation (e.g. hr.0). Note that the order in which the data can be used in the columns does not have to match the order in which it is defined in the data source. The structure of the row's data source in this example is:

{  
 "name": [  
 "Nixon",  
 "Tiger"  
 ],  
 "hr": [  
 "System Architect",  
 "$3,120",  
 "2011/04/25"  
 ],  
 "office": "Edinburgh",  
 "extn": "5421"  
}

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name | Position | Office | Extn. | Start date | Salary |
| Name | Position | Office | Extn. | Start date | Salary |

* 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( { "ajax": "data/objects\_subarrays.txt", "columns": [ { "data": "name[, ]" }, { "data": "hr.0" }, { "data": "office" }, { "data": "extn" }, { "data": "hr.2" }, { "data": "hr.1" } ] } ); } );

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/advanced_init/index.html)

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

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