

Administration Guide

NWAU Calculator

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Introduction

1.1 *Purpose*

This administration guide describes how to update and deploy The National Weighted Activity Unit (NWAU) Calculator.

All commands run in terminal, and should be done from the application directory unless otherwise specified.

1.2 *Prerequisites*

Node.js v0.12.7 (<https://nodejs.org/dist/v0.12.7/>)

Ruby v2.2.2 (<https://www.ruby-lang.org/en/installation/>)

Once Node.js and Ruby are installed, open terminal and run the following commands:

```
npm install -g yo cordova grunt-cli bower
```

```
npm install
```

```
bower install
```

```
gem install compass
```

1.3 *Building*

The application build process concatenates and minifies the web files. From terminal run:

```
grunt build
```

The application will be built and can be found in the *www* folder.

1.4 *Development Server*

To start a development server, from terminal, run:

```
grunt serve
```

This will open a new browser window with the development version of the application (<http://0.0.0.0:9000>). When files are changed, the server will automatically reload the application.

2 Deployment

The application is a static web site, and as such, hosting is incredibly simple.

2.1 *Deploying to IIS 7*

1. Build the application (refer to 1.3 Building).
2. Open IIS Manager.
3. In the **Connections** pane, right-click the **Sites** node in the tree, and then click **Add Website**.
4. In the **Add Website** dialog box, enter a name for the website into the **Site name** box.
5. If you want to select a different application pool rather than the one listed in the **Application Pool** box, click **Select**. In the **Select Application Pool** dialog box, select an application pool from the **Application Pool** list and then click **OK**.
6. In the **Physical path** box, enter the physical path of the website's folder, or click the browse button (...) to navigate the file system to find the folder.
7. Select the protocol for the website from the **Type** list.
8. If you must specify a static IP address for the website (by default, this is set to **All Unassigned**), enter the IP address into the **IP address** box.
9. Enter a port number into the **Port** text box.
10. Optionally, enter a host header name for the website into the **Host Header** box.
11. If you want the website to be immediately available, select the **Start Web site immediately** check box.
12. Click **OK**.
13. Copy the files from the applications **www** folder to the **Physical path** specified above.

2.2 *Configure static content compression*

1. In **Features View** of IIS Manager, double-click **Compression**.
2. Select **Enable static content compression** to configure IIS to compress static content.
3. In the **Static Compression** box, configure the following settings:
 1. Optionally, select **Only compress files larger than (in bytes)** and enter the minimum file size that you want IIS to compress (by default, this is set to 256 bytes).
 2. In the **Cache directory** text box, enter the path of a local directory or click the browse button (...) to navigate the file system to find the directory. After a static file is compressed, it is cached in this temporary directory until it expires, or until the content changes. The temporary directory must be on a local drive on an NTFS-formatted partition. The directory cannot be compressed, and should not be shared.

3. Optionally, select **Per application pool disk space limit (in MB)** and enter the maximum amount of space per application pool, in megabytes, you want IIS to use when it compresses static content. For example, if there are 20 application pools on the server and the **Disk space limit** is set to 100, the maximum disk space will be 2GB. If you click the **Per application pool disk space limit (in MB)** option and enter a number into the text box under it, IIS automatically cleans up the temporary directory according to a least recently used rule when the set limit is reached (by default, this is set to 100 MB per application pool).
4. Click **Apply** in the **Actions** pane.

2.3 *MIME Types*

Add the following MIME types if they are not already configured:

1. Open IIS Manager and navigate to the level you want to manage.
2. In **Features View**, double-click **MIME Types**.
3. In the **Actions** pane, click **Add**.
4. In the **Add MIME Type** dialog box, enter a file name extension into the **File name extension** text box. For example, type **.xyz**.
5. Enter a MIME type into the **MIME type** text box. For example, enter **application/octet-stream**.
6. Click **OK**.

File Name Extension	MIME Type
css	text/css
appcache	text/cache-manifest
json	application/json

3 Updating IHPA Reference Tables

The IHPA reference tables are found in the ConvertToJSON.xlsm excel Workbook. Each worksheet relates to a data set used in the application.

The following table describes each worksheet and its purpose:

Worksheet Name	Usage
AcuteYYYY	Acute Admitted DRG list, medium length descriptions and matched MDCs
NAPYYYY	Non-Admitted Tier2Clinic list
LongStayWeightsYYYY	Long Stay Weights for LOS > 200 (not implemented)
SpecifiedICUsYYYY	List of facilities that are ICU eligible
FacilitiesYYYY	List of all facilities with matched Facility ID
EDURGYYYY	Emergency Department URG list and matched MDB's
EDUDGYYYY	Emergency Department UDG list
SnapYYYY	Sub-Acute Admitted AN-SNAP list and matched Episode Types
AcuteAdjustmentYYYY	Adjustments related to Acute Admitted encounters
SubacuteAdjustmentYYYY	Adjustments related to Sub-Acute Admitted encounters
EDAdjustmentYYYY	Adjustments related to Emergency Department encounters
NonAdmittedAdjustmentYYYY	Adjustments related to Non-Admitted encounters
RegionsYYYY	List of Postcodes and matched Localities
SuggestionsYYYY	Suggestions table
LosStateYYYY	Length of Stay State averages for past year
LosUngroupedStateYYYY	Ungrouped Length of Stay State averages for past year
IcuStateYYYY	State Average ICU Hours for DRG's
StatePrice	State Efficient Price parameters

NB: YYYY denotes a fiscal year: e.g. 1415 or 1516

3.1 *Exporting data for use in the application*

Note: Sometimes there may be issues in exporting the data out into JSON files, where some sheets may not produce their respective JSON files. To overcome this, some JSON files may need to be created manually by placing the data into a generic CSV to JSON file convertor. Before following the below steps, please ensure the data structure and variable names remain the same, and that only the data itself is changing. To ensure the data aligns within the application, follow previous years as a guide. A good way to verify that there will be no issues within the application is to compare the newly created JSON files with that of last year, to ensure it follows the same structure. i.e. Check the variable names have remained the same, and that the data associated with the variable name has maintained the same formatting e.g. If a variables data is wrapped in quotes in last years' version, the new version should also have the variables new data wrapped in quotes. If a variables data is not wrapped in quotes in the old version, then the variables data in the new JSON file should not be wrapped in quotes.

1. Open ConvertToJSON.xlsm.
2. Make adjustments to the data as necessary.
3. Run the macro titled ConvertToJSON by pressing the **Convert all worksheets to JSON data** button on the **ConvertPage** worksheet.
4. The macro will create a **.json** file for each of the worksheets in the same folder as the Workbook.
5. Move the **.json** files to **app\ihpa** replacing the previous versions.

If updating SNAPYYYYY worksheet:

Change all the blank descriptions to meaningful descriptions. Descriptions are blank for ungrouped care types by default. i.e. Give all the ungrouped care type AN-SNAPs the description 'Ungrouped Care Type'.

If updating Suggestions worksheet:

Change all ungrouped care types (Care_Type_X) to the appropriate name as they are displayed in the application upon finding suggestions. i.e. Rename 'Care_Type_2' to 'Rehabilitation Ungrouped Care Type'.

3.2 Adding a new financial year

Create new IHPA Reference Tables by adding new worksheets to match each of the existing worksheets that are suffixed YYYY. For example, for 2016/2017, those worksheets would be:

- Acute1617
- NAP1617
- LongStayWeights1617
- SpecifiedICUs1617
- Facilities1617
- EDURG1617
- EDUDG1617
- Snap1617
- AcuteAdjustment1617
- SubacuteAdjustment1617
- EDAdjustment1617
- NonAdmittedAdjustment1617
- Regions1617
- Suggestions1617
- LosState1617
- LosUngroupedState1617
- IcuState1617
- StatePrice

1. Use the same structure in the new worksheets as they were in previous years.
2. Export the data by following Section 3.1.
3. Open **app/scripts/services/directives.js**
4. Modify the **currentYear** and **previousYear** parameters to correspond with the new financial year. i.e. replace “value” with the corresponding year and change “label” to reflect the NWAU year entered into “value”.

```
angular.module('nwauCalculatorApp')
  .directive('journeyForm', function () {
    return {
      restrict: 'E',
      replace: true,
      templateUrl: 'views/_journey-form.html',
      controller: ['$scope', 'ihpaService',
        function ($scope, ihpaService) {
          $scope.currentYear = {
            value: 2015,
            label: 'NWAU15'
          };
          $scope.previousYear = {
            value: 2014,
            label: 'NWAU14'
          };
        }
      ]
    };
  });
```

5. Rebuild the application and deploy.

3.3 *Troubleshooting*

If a runtime error occurs, ensure that only appropriate fields have been altered and that no fields contain invalid types.

Cells cannot contain #div/0!, #N/A, #NAME?, #NULL!, #NUM!, #REF!, #VALUE! These are unique error return codes in excel. Furthermore, merged cells are not allowed.

Do not use brackets in Row1 as the program will remove them along with everything inside, to prevent incorrect syntax in JavaScript.