

SWANSEA UNIVERSITY

MENG COMPUTING

CSM14 - INDIVIDUAL PROJECT

Design Document

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Chapter 1

Architecture

The application has been developed using a three-tier-architecture model. In doing so, the application is naturally modular in the sense that each of the tiers can be changed at any time without having great impact on the other tiers. Throughout this chapter of the document I have used the word layer instead of tier to refer to each part of the application. The three layers of the application have been identified as being the data layer, services layer and presentation layer. The simple architecture diagram presented in Figure 1.1 shows how the three layers of the application communicate with each other. Each of the aforementioned layers will be discussed in this chapter.

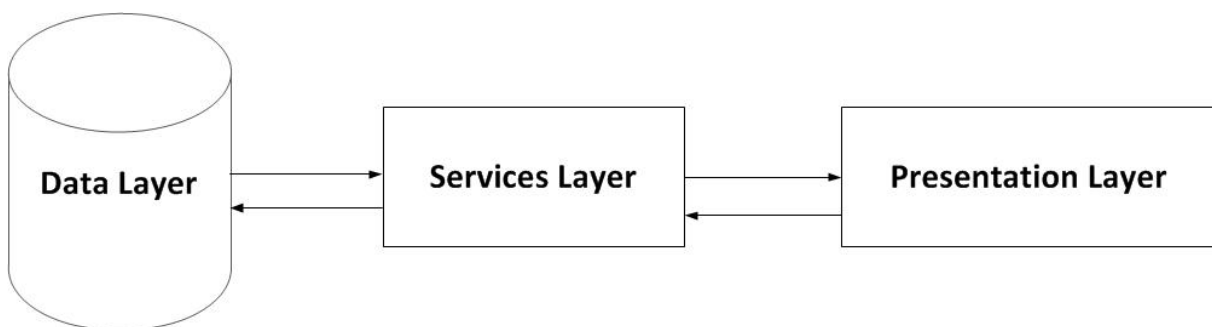


Figure 1.1: Architectural overview of the three layers of the system.

1.1 Data Layer

The data layer of the application enables the services layer to perform CRUD operations on the records held within the database. A decision had to be made on how communication with the database should be handled. It was decided that the best way forward was to use the Microsoft ADO.NET Entity Framework and LINQ. The reason behind the decision was that it makes interacting with a data source extremely easy and requires very minimal to zero plumbing code. By not having to write any plumbing code, this has made my code a lot easier to read and understand. It also allowed me to concentrate mainly on the business logic of the application and less so on the data access logic. Using LINQ has allowed me to issue queries to the database and have strongly typed objects returned that can be manipulated and saved back to the database. The data layer was the first layer of the application that was implemented.

An alternative to using the Microsoft ADO.NET Entity Framework, to communicate with the database, would require explicitly writing the SQL queries. This was decided against as it could potentially make my code slightly harder to read and understand. As these problems are solved by Entity Framework it seemed like the logical decision was to rule out using explicit SQL queries to communicate with the database. Also, the SQL queries would not return strongly typed objects.

The design of the database will not be discussed in this document as it was not developed as part of the project.

The database schema being used for this application is the same as the one currently being used by the legacy application (Glimpse Desktop). This was one of the goals of the project. However, it was required to add primary keys, and some foreign keys, to the tables in the database as they were not present.

1.2 Services Layer

The second layer of the application is the services layer. This will be the layer between the data layer and the presentation layer. It will handle requests made from the presentation layer, fulfil the request and provide a response. The services layer has been implemented using WCF. Each section of the application has its own WCF service that can be referenced to by the presentation layer to allow communication between endpoints. All functions for a section of the application is contained within the related WCF service. In total there are 22 WCF services, each of which are discussed in detail in section 2. The language used to write the services was C# .NET.

1.3 Presentation Layer

The third and final layer of the application is the presentation layer. It is this layer of the application that a user of the system will interact with. When a user interacts with the presentation layer, requests will be directed to the services that have been created in the services layer. The technology that has been used to develop the presentation layer is ASP.NET MVC 3. This was decided during the creation of the specification document. There were several reasons for choosing to use the MVC framework to develop the presentation layer. The main one being that the user interface logic is kept separate from the input logic. This makes it possible to change one of the components without having to make any changes to the other. Several other reasons for choosing to use MVC were that it makes the following relatively simple to achieve:

- Validating user input.
- Authenticating users.
- Placing restrictions on certain functionality based on a users rights level.

While developing the presentation layer it was important that the layout was kept consistent throughout the application. This was achieved by creating a layout page which contains a navigation panel on the left of the page, a bar at the top with a log out button and the rest of the page to load dynamic content in. This can be seen in Figure 1.2

The screenshot shows a web application interface for managing customers. At the top right, there is a 'Log Out' button. On the left, a navigation menu lists various sections like 'Diary', 'Maintenance', 'Equipment And Services', 'Workforce', 'Customers', 'Regional Offices', 'Sites', 'Administration', 'In the Field', 'Other', 'Messages', 'Mapping', 'Invoicing', 'Reports', and 'Settings'. The 'Customers' section is currently selected. The main content area is titled 'Customer Details' and is split into two columns. The left column contains fields for 'Customer Name' (Mr Simon Walters), 'Status' (Stop), 'Phone Number' (01234 567890), 'Fax Number', 'Email' (simon.walters@gmail.com), and 'Contact' (Simon Walters). The right column is titled 'Customer Address' and contains a multi-line address form with fields for Line 1 through Line 4, 'Postcode' (SA14 7LA), and 'Keyword' (24 Penygroes Rd, SA14 7LA). Below these sections is a 'Customer Sites' table with columns for 'Keyword', 'Address Concat', and 'Postcode'. The table contains one entry: '24 Penygroes Rd, SA14 7LA' for the keyword, '24 Penygroes Road, Gorslas, Llanelli, Carmarthenshire' for the address, and 'SA14 7LA' for the postcode. An 'Edit' button is located at the bottom of the table.

Figure 1.2: The customers view showing each of the parts of the layout page. The navigation panel (left), panel bar with log out button (top) and dynamic content panel (right).

The language that has been used to write the controllers was C# .NET. This was chosen due to wide range of online resources and already being familiar with the language. To cater for all of the different sections of the application, many controllers had to be created. Each of the controllers are discussed in detail in section 3.

Chapter 2

RNA Project Services - Class Documentation

This chapter of the document breaks down and discusses each of the WCF services that have been created. Each of the services have a brief description and all of their public methods are described. The name, return type and parameters of each method are given.

2.1 RNAProjectServices.Diary.JobsService Class Reference

This service provides functions that allow the jobs held in the system to be manipulated.

2.1.1 Member Function Documentation

2.1.1.1 bool RNAProjectServices.Diary.JobsService.AddNewJob (JobData jobDetails)

Adds a new job to the system.

Parameters

<i>jobDetails</i>	The job details.
-------------------	------------------

Returns

`true` if the job is added successfully; otherwise, `false`.

2.1.1.2 bool RNAProjectServices.Diary.JobsService.CallbackJob (string jobld)

Callbacks the job from the operator.

Parameters

<i>jobld</i>	The job id of the job to callback.
--------------	------------------------------------

Returns

`true` if the job is calledback successfully; otherwise, `false`.

2.1.1.3 JobData RNAProjectServices.Diary.JobsService.GetJobDetails (string jobld)

Gets the job details.

Parameters

<i>jobId</i>	The job id.
--------------	-------------

Returns

The details of the specified job.

2.1.1.4 List<SimpleJobDetailsData> RNAProjectServices.Diary.JobsService.GetJobs ()

Gets all the jobs held in the system .

Returns

A list of all of the jobs held in the system.

2.1.1.5 List<JobListData> RNAProjectServices.Diary.JobsService.GetJobsByCustomer (string customerId)

Gets the jobs by customer.

Parameters

<i>customerId</i>	The customer id.
-------------------	------------------

Returns

A list of jobs associated to the specified customer.

2.1.1.6 List<JobListData> RNAProjectServices.Diary.JobsService.GetJobsByDateBooked (DateTime dateBooked)

Gets the jobs by date booked.

Parameters

<i>dateBooked</i>	The date booked.
-------------------	------------------

Returns

A list of jobs that were booked on the date specified.

2.1.1.7 List<JobListData> RNAProjectServices.Diary.JobsService.GetJobsByOperator (string operatorId)

Gets the jobs by operator.

Parameters

<i>operatorId</i>	The operator id.
-------------------	------------------

Returns

A list of jobs associated to the specified operator.

2.1.1.8 List<JobListData> RNAProjectServices.Diary.JobsService.GetJobsByPlantItem (string *plantItemId*)

Gets the jobs by plant item.

Parameters

<i>plantItemId</i>	The plant item id.
--------------------	--------------------

Returns

A list of jobs associated to the specified plant item.

2.1.1.9 List<JobListData> RNAProjectServices.Diary.JobsService.GetJobsBySite (string *siteId*)

Gets the jobs by site.

Parameters

<i>siteId</i>	The site id.
---------------	--------------

Returns

A list of jobs associated to the specified site.

2.1.1.10 List<JobListData> RNAProjectServices.Diary.JobsService.GetJobsBySubcontractor (string *subcontractorId*)

Gets the jobs by subcontractor.

Parameters

<i>subcontractorId</i>	The subcontractor id.
------------------------	-----------------------

Returns

A list of jobs associated to the specified subcontractor.

2.1.1.11 List<JobListData> RNAProjectServices.Diary.JobsService.GetJobsForDate (DateTime *date*)

Gets the jobs that are booked for a specific date.

Parameters

<i>date</i>	The date the jobs are booked for.
-------------	-----------------------------------

Returns

A list of jobs that are booked on the date specified.

2.1.1.12 bool RNAProjectServices.Diary.JobsService.RemoveJob (string *jobId*)

Removes a job.

Parameters

<i>jobId</i>	The job id of the job to remove.
--------------	----------------------------------

Returns

`true` if the job is removed successfully; otherwise, `false`.

2.1.1.13 `bool RNAProjectServices.Diary.JobsService.SendJobToOperator (string jobId)`

Sends the job to an operator.

Parameters

<i>jobId</i>	The job id of the job to send.
--------------	--------------------------------

Returns

`true` if the job is sent successfully; otherwise, `false`.

2.1.1.14 `bool RNAProjectServices.Diary.JobsService.UpdateJobAllocationDetails (string jobId, JobAllocationData allocationDetails)`

Updates the job allocation details.

Parameters

<i>jobId</i>	The job id.
<i>allocationDetails</i>	The allocation details.

Returns

`true` if the job allocation details are updated successfully; otherwise, `false`.

2.1.1.15 `bool RNAProjectServices.Diary.JobsService.UpdateJobOfficeComments (string jobId, string officeComments)`

Updates the office comments for the given job.

Parameters

<i>jobId</i>	The job id.
<i>officeComments</i>	The office comments.

Returns

`true` if the office comments for the job are updated successfully; otherwise, `false`.

2.1.1.16 `bool RNAProjectServices.Diary.JobsService.UpdateJobRequireSignature (string jobId, bool requireSignature)`

Updates the require signature field for a job.

Parameters

<i>jobId</i>	The job id.
<i>requireSignature</i>	Whether or not the job requires a signature

Returns

`true` if the require signature field for the job is updated successfully; otherwise, `false`.

2.1.1.17 `bool RNAProjectServices.Diary.JobsService.UpdateJobTimesDetails (string jobId, JobTimesData jobTimes)`

Updates the job times details for a job.

Parameters

<i>jobId</i>	The job id.
<i>jobTimes</i>	The job times.

Returns

`true` if the job times are updated successfully; otherwise, `false`.

2.2 RNAProjectServices.Invoicing.InvoicingService Class Reference

This service provides all of the functions that are required to deal with invoices and invoice payments.

2.2.1 Member Function Documentation

2.2.1.1 `void RNAProjectServices.Invoicing.InvoicingService.AddInvoice (InvoiceDetailsData invoiceDetails)`

Adds a new invoice to the system.

Parameters

<i>invoiceDetails</i>	The invoice details.
-----------------------	----------------------

2.2.1.2 `void RNAProjectServices.Invoicing.InvoicingService.AddInvoicePayment (InvoicePaymentData invoicePaymentDetails)`

Adds an invoice payment.

Parameters

<i>invoicePaymentDetails</i>	The invoice payment details.
------------------------------	------------------------------

2.2.1.3 `bool RNAProjectServices.Invoicing.InvoicingService.CanJobsBeInvoicedTogether (List< string > jobIds)`

Determines whether all of the jobs in the list can be invoiced together.

Parameters

<i>jobIds</i>	The job ids to test if they can be invoiced together.
---------------	---

Returns

true if all of the jobs can be invoiced together; otherwise, false.

2.2.1.4 NewInvoicePreviewData RNAProjectServices.Invoicing.InvoicingService.GetDetailsForNewInvoice (List< string > jobsToInvoice)

Gets the details for a new invoice.

Parameters

<i>jobsToInvoice</i>	The jobs to invoice.
----------------------	----------------------

Returns

The details for a new invoice.

2.2.1.5 List<InvoicePaymentData> RNAProjectServices.Invoicing.InvoicingService.GetInvoicePayments (string invoiceId)

Gets the invoice payments that have been made towards an invoice.

Parameters

<i>invoiceId</i>	The invoice id.
------------------	-----------------

Returns

A list of all the payments that have been made towards the specified invoice.

2.2.1.6 InvoicePaymentDetailsData RNAProjectServices.Invoicing.InvoicingService.GetInvoicePayments-Details (string invoiceId)

Gets the invoice payment details for an invoice.

Parameters

<i>invoiceId</i>	The invoice id.
------------------	-----------------

Returns

The invoice payment details for an invoice.

2.2.1.7 InvoicePreviewData RNAProjectServices.Invoicing.InvoicingService.GetInvoicePreviewDetails (string invoiceId)

Gets the details of an invoice.

Parameters

<i>invoiceId</i>	The invoice id.
------------------	-----------------

Returns

The details of an invoice.

2.2.1.8 List<InvoiceListData> RNAProjectServices.Invoicing.InvoicingService.GetInvoices ()

Gets all of the invoices that have been created.

Returns

A list containing all of the invoices in the system.

2.2.1.9 List<InvoiceJobData> RNAProjectServices.Invoicing.InvoicingService.GetJobsToInvoice ()

Gets all of the jobs in the system that are ready to invoice.

Returns

A list of jobs that are ready to be invoiced.

2.2.1.10 void RNAProjectServices.Invoicing.InvoicingService.MarkJobsAsInvoiced (List< string > jobIds)

Marks all of the specified jobs as invoiced.

Parameters

<i>jobIds</i>	The job ids.
---------------	--------------

2.2.1.11 void RNAProjectServices.Invoicing.InvoicingService.RemoveInvoicePayment (string invoicePaymentId)

Removes an invoice payment.

Parameters

<i>invoicePaymentId</i>	The invoice payment id.
-------------------------	-------------------------

2.2.1.12 void RNAProjectServices.Invoicing.InvoicingService.UpdateInvoicePayment (InvoicePaymentData updatedInvoiceDetails)

Updates an invoice payment.

Parameters

<i>updatedInvoiceDetails</i>	The updated invoice details.
------------------------------	------------------------------

2.3 RNAProjectServices.Maintenance.AddressService Class Reference

This service provides functions that allow the addresses held in the system to be manipulated.

2.3.1 Member Function Documentation

2.3.1.1 void RNAProjectServices.Maintenance.AddressService.AddAddress (AddressData *newAddress*)

Adds a new address.

Parameters

<i>newAddress</i>	The new address.
-------------------	------------------

2.3.1.2 AddressData RNAProjectServices.Maintenance.AddressService.GetAddressDataFromId (string *addressId*)

Gets the address data by id.

Parameters

<i>addressId</i>	The address id.
------------------	-----------------

Returns

The details of the specified address.

2.3.1.3 List<AddressData> RNAProjectServices.Maintenance.AddressService.GetAddresses ()

Gets a list of all of the addresses.

Returns

A list of all the addresses held in the system.

2.3.1.4 List<AddressLinkData> RNAProjectServices.Maintenance.AddressService.GetAddressLinks (string *addressId*)

Gets the address links.

Parameters

<i>addressId</i>	The address id to get the address links for.
------------------	--

Returns

A list of associations of an address.

2.3.1.5 List<AddressData> RNAProjectServices.Maintenance.AddressService.GetUnlinkedAddresses ()

Gets the unlinked addresses.

Returns

A list of addresses that are unlinked.

2.3.1.6 void RNAProjectServices.Maintenance.AddressService.RemoveAddress (string *addressId*)

Removes an address.

Parameters

<i>addressId</i>	The address id of the address to remove.
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2.3.1.7 void RNAProjectServices.Maintenance.AddressService.UpdateAddress (AddressData *addressDetails*)

Updates an address.

Parameters

<i>addressDetails</i>	The updated address details.
-----------------------	------------------------------

2.4 RNAProjectServices.Maintenance.CustomersService Class Reference

This service provides functions that allow the customer details to be retrieved and manipulated.

2.4.1 Member Function Documentation**2.4.1.1 void RNAProjectServices.Maintenance.CustomersService.AddCustomer (CustomerData *newCustomer*)**

Adds a new customer to the system.

Parameters

<i>newCustomer</i>	The new customer.
--------------------	-------------------

2.4.1.2 CustomerData RNAProjectServices.Maintenance.CustomersService.GetCustomerDetails (string *customerId*)

Gets the customer details.

Parameters

<i>customerId</i>	The customer id.
-------------------	------------------

Returns

The details of the specified customer.

2.4.1.3 List<SimpleCustomerData> RNAProjectServices.Maintenance.CustomersService.GetCustomers ()

Gets the customers.

Returns

A list of all customers held in the system.

2.4.1.4 CustomerRateData RNAProjectServices.Maintenance.CustomersService.GetServiceRateForCustomer (string *serviceld*, string *customerld*)

Gets the service rate for the customer.

Parameters

<i>serviceld</i>	The service id.
<i>customerld</i>	The customer id.

Returns

The service rate of the specified service for the given customer.

2.4.1.5 void RNAProjectServices.Maintenance.CustomersService.RemoveCustomer (string *customerld*)

Removes the customer.

Parameters

<i>customerld</i>	The customer id.
-------------------	------------------

2.4.1.6 void RNAProjectServices.Maintenance.CustomersService.RemoveServiceRateForCustomer (string *serviceld*, string *customerld*)

Removes the service rate for the customer.

Parameters

<i>serviceld</i>	The service id.
<i>customerld</i>	The customer id.

2.4.1.7 void RNAProjectServices.Maintenance.CustomersService.UpdateCustomerDetails (CustomerData *updatedCustomerDetails*)

Updates the customer details.

Parameters

<i>updated-CustomerDetails</i>	The updated customer details.
--------------------------------	-------------------------------

2.4.1.8 void RNAProjectServices.Maintenance.CustomersService.UpdateServiceRateForCustomer (CustomerRateData *customerServiceRateDetails*)

Updates the service rate for the customer.

Parameters

<i>customer-ServiceRate-Details</i>	The customer service rate details.
-------------------------------------	------------------------------------

2.5 RNAProjectServices.Maintenance.DevicesService Class Reference

This service provides functions related to the devices section of the application.

2.5.1 Member Function Documentation

2.5.1.1 void RNAProjectServices.Maintenance.DevicesService.AddDevice (DeviceData *newDeviceDetails*)

Adds a new device to the system.

Parameters

<i>newDevice-Details</i>	The new device details.
--------------------------	-------------------------

2.5.1.2 DeviceData RNAProjectServices.Maintenance.DevicesService.GetDeviceDetails (string *deviceld*)

Gets the device details.

Parameters

<i>deviceld</i>	The device id.
-----------------	----------------

Returns

The details of the device.

2.5.1.3 List<SimpleDeviceData> RNAProjectServices.Maintenance.DevicesService.GetDevices ()

Gets the devices.

Returns

A list of all the devices held in the system.

2.5.1.4 void RNAProjectServices.Maintenance.DevicesService.RemoveDevice (string *deviceld*)

Removes the device.

Parameters

<i>deviceld</i>	The device id.
-----------------	----------------

2.5.1.5 void RNAProjectServices.Maintenance.DevicesService.UpdateDevice (DeviceData updatedDeviceDetails)

Updates a device.

Parameters

<i>updatedDevice-Details</i>	The updated device details.
------------------------------	-----------------------------

2.6 RNAProjectServices.Maintenance.OperatorsService Class Reference

This service provides functions related to the operators section of the application.

2.6.1 Member Function Documentation

2.6.1.1 void RNAProjectServices.Maintenance.OperatorsService.AddDriverAbsence (OperatorAbsenceData newAbsence)

Adds a new absence for the operator.

Parameters

<i>newAbsence</i>	The new absence details.
-------------------	--------------------------

2.6.1.2 void RNAProjectServices.Maintenance.OperatorsService.AddOperator (OperatorData newOperator)

Adds an operator to the system.

Parameters

<i>newOperator</i>	The new operator.
--------------------	-------------------

2.6.1.3 bool RNAProjectServices.Maintenance.OperatorsService.ChangeOperatorPassword (string operatorId, string oldPassword, string newPassword)

Changes the operator password.

Parameters

<i>operatorId</i>	The operator id.
<i>oldPassword</i>	The old password.
<i>newPassword</i>	The new password.

Returns

`true` if the password is changed successfully; otherwise, `false`.

2.6.1.4 void RNAProjectServices.Maintenance.OperatorsService.DeleteDriverAbsence (string absenceId)

Deletes the driver absence.

Parameters

<i>absenceld</i>	The absence id.
------------------	-----------------

2.6.1.5 List<SimpleOperatorData> RNAProjectServices.Maintenance.OperatorsService.GetAvailable-OperatorsForDeviceAssignment (string *deviceld*)

Gets the available operators for device assignment.

Parameters

<i>deviceld</i>	The device id.
-----------------	----------------

Returns

A list of operators that can be assigned to a particular device.

2.6.1.6 List<SimpleOperatorData> RNAProjectServices.Maintenance.OperatorsService.GetAvailable-OperatorsForPlantAssignment (string *plantld*)

Gets the available operators for plant assignment.

Parameters

<i>plantld</i>	The plant id.
----------------	---------------

Returns

A list of operators that can be assigned to a particular item of plant.

2.6.1.7 string RNAProjectServices.Maintenance.OperatorsService.GetDevicePhoneNumber (string *deviceld*)

Gets the device phone number.

Parameters

<i>deviceld</i>	The device id.
-----------------	----------------

Returns

The phone number of the device specified.

2.6.1.8 List<OperatorAbsenceData> RNAProjectServices.Maintenance.OperatorsService.GetDriver-AbsenceData (string *operatorld*)

Gets the operators absence data.

Parameters

<i>operatorld</i>	The operator id.
-------------------	------------------

Returns

A list of the operators absence details

2.6.1.9 OperatorData RNAProjectServices.Maintenance.OperatorsService.GetOperatorDetails (string operatorId)

Gets the operator details.

Parameters

<i>operatorId</i>	The operator id.
-------------------	------------------

Returns

The details of the specified operator.

2.6.1.10 string RNAProjectServices.Maintenance.OperatorsService.GetOperatorName (string operatorId)

Gets the name of the operator.

Parameters

<i>operatorId</i>	The operator id.
-------------------	------------------

Returns

The name of the operator related to the given id.

2.6.1.11 string RNAProjectServices.Maintenance.OperatorsService.GetPlantRegistration (string plantId)

Gets the plant registration.

Parameters

<i>plantId</i>	The plant id.
----------------	---------------

Returns

The registration of the specified plant item.

2.6.1.12 List<SimpleOperatorData> RNAProjectServices.Maintenance.OperatorsService.GetSimpleOperatorsList ()

Gets the simple operators list.

Returns

A list of all operators in the system.

2.6.1.13 bool RNAProjectServices.Maintenance.OperatorsService.IsLoginNameUnique (string operatorId, string loginName)

Determines whether the login name is unique for the specified operator.

Parameters

<i>operatorId</i>	The operator id.
<i>loginName</i>	Name of the login.

Returns

`true` if the login name is unique; otherwise, `false`.

2.6.1.14 `bool RNAProjectServices.Maintenance.OperatorsService.IsNewLoginNameUnique (string loginName)`

Determines whether a new login name is unique.

Parameters

<i>loginName</i>	The login name.
------------------	-----------------

Returns

`true` if the new login name is unique; otherwise, `false`.

2.6.1.15 `void RNAProjectServices.Maintenance.OperatorsService.RemoveOperator (string operatorId)`

Removes an operator from the system.

Parameters

<i>operatorId</i>	The operator id.
-------------------	------------------

2.6.1.16 `bool RNAProjectServices.Maintenance.OperatorsService.SendOperatorListToPDAs ()`

Sends the operator list to PDAs.

Returns

`true` if the list is sent successfully; otherwise, `false`.

2.6.1.17 `void RNAProjectServices.Maintenance.OperatorsService.UpdateDriverAbsence (OperatorAbsenceData updatedAbsenceDetails)`

Updates the driver absence.

Parameters

<i>updated-AbsenceDetails</i>	The updated absence details.
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2.6.1.18 `void RNAProjectServices.Maintenance.OperatorsService.UpdateOperatorDetails (OperatorData updatedOperatorDetails)`

Updates the operator details.

Parameters

<i>updated-OperatorDetails</i>	The updated operator details.
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2.6.1.19 void RNAProjectServices.Maintenance.OperatorsService.UpdateOperatorDeviceAssignment (string *operatorId*, string *deviceId*)

Updates the operator device assignment.

Parameters

<i>operatorId</i>	The operator id.
<i>deviceId</i>	The device id.

2.6.1.20 void RNAProjectServices.Maintenance.OperatorsService.UpdateOperatorPlantAssignment (string *operatorId*, string *plantId*)

Updates the operator plant assignment.

Parameters

<i>operatorId</i>	The operator id.
<i>plantId</i>	The plant id.

2.7 RNAProjectServices.Maintenance.OrdersService Class Reference

This service provides functions related to the orders section of the application.

2.7.1 Member Function Documentation

2.7.1.1 void RNAProjectServices.Maintenance.OrdersService.AddOrder (OrderData *orderDetails*)

Adds a new order to the system.

Parameters

<i>orderDetails</i>	The order details.
---------------------	--------------------

2.7.1.2 List<OrderData> RNAProjectServices.Maintenance.OrdersService.GetCustomerSiteOrders (string *customerId*, string *siteId*)

Gets the customer site orders.

Parameters

<i>customerId</i>	The customer id.
<i>siteId</i>	The site id.

Returns

List of orders related to the specified site.

2.7.1.3 OrderData RNAProjectServices.Maintenance.OrdersService.GetOrderDetails (string *orderId*)

Gets the order details.

Parameters

<i>orderId</i>	The order id.
----------------	---------------

Returns

The order details corresponding to the specified order id.

2.7.1.4 List<OrderData> RNAProjectServices.Maintenance.OrdersService.GetOrdersList ()

Gets the orders list.

Returns

List of orders.

2.7.1.5 bool RNAProjectServices.Maintenance.OrdersService.RemoveOrder (string *orderId*)

Removes an order from the system.

Parameters

<i>orderId</i>	The order id.
----------------	---------------

Returns

`true` if the order is removed successfully; otherwise, `false`.

2.7.1.6 void RNAProjectServices.Maintenance.OrdersService.UpdateOrder (OrderData *updatedOrderDetails*)

Updates the details of an order.

Parameters

<i>updatedOrder-Details</i>	The updated order details.
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2.8 RNAProjectServices.Maintenance.OtherService Class Reference

This service provides functions related to the section of the application titled other.

2.8.1 Member Function Documentation**2.8.1.1 List<JobRequiringSignatureData> RNAProjectServices.Maintenance.OtherService.GetJobsRequiringSignatures ()**

Gets the jobs requiring signatures.

Returns

A list of jobs that require signatures to be captured.

2.8.1.2 void RNAProjectServices.Maintenance.OtherService.MarkJobsAsNotRequiringSignature (List< string > *jobList*)

Marks the jobs as not requiring a signature.

Parameters

<i>jobList</i>	The jobs not requiring signatures.
----------------	------------------------------------

2.8.1.3 void RNAProjectServices.Maintenance.OtherService.SendJobsToOperatorForSignatureCollection (List< string > *jobList*, string *operatorId*)

Sends the jobs to the operator for signature collection.

Parameters

<i>jobList</i>	The job list.
<i>operatorId</i>	The operator id.

2.9 RNAProjectServices.Maintenance.PlantService Class Reference

This service provides functions that allow the plant items held in the system to be manipulated.

2.9.1 Member Function Documentation

2.9.1.1 void RNAProjectServices.Maintenance.PlantService.AddPlantItem (PlantItemData *newPlantItem*, PlantMaintenanceData *maintenanceSchedule*, OperatorPlantData *operatorPlantAssignment*)

Adds a new plant item to the system.

Parameters

<i>newPlantItem</i>	The new plant item.
<i>maintenance-Schedule</i>	The maintenance schedule.
<i>operatorPlant-Assignment</i>	The operator plant assignment.

2.9.1.2 void RNAProjectServices.Maintenance.PlantService.AddPlantMaintenanceSchedule (string *plantItemId*, PlantMaintenanceData *maintenanceSchedule*)

Adds the plant maintenance schedule.

Parameters

<i>plantItemId</i>	The plant item id.
<i>maintenance-Schedule</i>	The maintenance schedule.

2.9.1.3 void **RNAProjectServices.Maintenance.PlantService.AddPlantOperatorAssignment** (**OperatorPlantData** *operatorPlantAssignment*)

Adds the plant operator assignment.

Parameters

<i>operatorPlantAssignment</i>	The operator plant assignment.
--------------------------------	--------------------------------

2.9.1.4 void **RNAProjectServices.Maintenance.PlantService.DeleteHistoryEvent** (string *eventId*)

Deletes the history event.

Parameters

<i>eventId</i>	The event id.
----------------	---------------

2.9.1.5 **PlantHistoryData** **RNAProjectServices.Maintenance.PlantService.GetHistoryEventDetails** (string *eventId*)

Gets the details of the history event.

Parameters

<i>eventId</i>	The event id.
----------------	---------------

Returns

The details held about the history event.

2.9.1.6 List<**PlantHistoryData**> **RNAProjectServices.Maintenance.PlantService.GetHistoryForPlantItem** (string *plantItemId*)

Gets the history for plant item.

Parameters

<i>plantItemId</i>	The plant item id.
--------------------	--------------------

Returns

A list of history events for the plant item.

2.9.1.7 **PlantItemData** **RNAProjectServices.Maintenance.PlantService.GetPlantItemDetails** (string *plantItemId*)

Gets the plant item details.

Parameters

<i>plantItemId</i>	The plant item id.
--------------------	--------------------

Returns

The details of the specified plant item.

2.9.1.8 List<PlantItemData> RNAProjectServices.Maintenance.PlantService.GetPlantItems ()

Gets the plant items.

Returns

A list of all plant items in the system.

2.9.1.9 List<PlantItemData> RNAProjectServices.Maintenance.PlantService.GetPlantItemsOfType (string *plantTypeId*)

Gets the plant items that are a certain plant type.

Parameters

<i>plantTypeId</i>	The plant type id.
--------------------	--------------------

Returns

A list of plant items that are of the specified plant type.

2.9.1.10 PlantMaintenanceData RNAProjectServices.Maintenance.PlantService.GetPlantMaintenanceSchedule (string *plantItemId*)

Gets the plant maintenance schedule.

Parameters

<i>plantItemId</i>	The plant item id.
--------------------	--------------------

Returns

The maintenance schedule for the specified plant item.

2.9.1.11 List<string> RNAProjectServices.Maintenance.PlantService.GetPlantOperators (string *plantItemId*)

Gets the plant operators.

Parameters

<i>plantItemId</i>	The plant item id.
--------------------	--------------------

Returns

A list of operator IDs.

2.9.1.12 void RNAProjectServices.Maintenance.PlantService.InsertHistoryEvent (PlantHistoryData updatedEventDetails)

Inserts the history event.

Parameters

<i>updatedEvent-Details</i>	The updated event details.
-----------------------------	----------------------------

2.9.1.13 void RNAProjectServices.Maintenance.PlantService.RemovePlantItem (string plantItemId)

Removes the plant item.

Parameters

<i>plantItemId</i>	The plant item id.
--------------------	--------------------

2.9.1.14 void RNAProjectServices.Maintenance.PlantService.RemovePlantMaintenanceSchedule (string plantItemId)

Removes the plant maintenance schedule.

Parameters

<i>plantItemId</i>	The plant item id.
--------------------	--------------------

2.9.1.15 void RNAProjectServices.Maintenance.PlantService.RemovePlantOperatorAssignment (string plantId)

Removes the plant operator assignment.

Parameters

<i>plantId</i>	The plant id.
----------------	---------------

2.9.1.16 bool RNAProjectServices.Maintenance.PlantService.SendPlantListToPDAs ()

Sends the plant list to PDAs.

Returns

`true` if the list is sent successfully; otherwise, `false`.

2.9.1.17 void RNAProjectServices.Maintenance.PlantService.UpdateHistoryEvent (PlantHistoryData updatedEventDetails)

Updates the history event.

Parameters

<i>updatedEvent-Details</i>	The updated event details.
-----------------------------	----------------------------

2.9.1.18 void RNAProjectServices.Maintenance.PlantService.UpdatePlantItem (PlantItemData updatedPlantItem, PlantMaintenanceData maintenanceSchedule, OperatorPlantData operatorPlantAssignment)

Updates the plant item.

Parameters

<i>updatedPlant-Item</i>	The updated plant item.
<i>maintenance-Schedule</i>	The maintenance schedule.
<i>operatorPlant-Assignment</i>	The operator plant assignment.

2.9.1.19 void RNAProjectServices.Maintenance.PlantService.UpdatePlantMaintenanceSchedule (string plantItemId, PlantMaintenanceData maintenanceSchedule)

Updates the plant maintenance schedule.

Parameters

<i>plantItemId</i>	The plant item id.
<i>maintenance-Schedule</i>	The maintenance schedule.

2.9.1.20 void RNAProjectServices.Maintenance.PlantService.UpdatePlantOperatorAssignment (OperatorPlantData operatorPlantAssignment)

Updates the plant operator assignment.

Parameters

<i>operatorPlant-Assignment</i>	The operator plant assignment.
---------------------------------	--------------------------------

2.10 RNAProjectServices.Maintenance.PlantTypesService Class Reference

This service provides functions that allow the plant types held in the system to be manipulated.

2.10.1 Member Function Documentation

2.10.1.1 void RNAProjectServices.Maintenance.PlantTypesService.AddPlantType (PlantTypeData newPlantType)

Adds the plant type.

Parameters

<i>newPlantType</i>	New plant type.
---------------------	-----------------

2.10.1.2 PlantTypeData RNAProjectServices.Maintenance.PlantTypesService.GetPlantTypeDetails (string *plantTypeId*)

Gets the plant type details.

Parameters

<i>plantTypeId</i>	The plant type id.
--------------------	--------------------

Returns

The details of the specified plant type.

2.10.1.3 List<PlantTypeData> RNAProjectServices.Maintenance.PlantTypesService.GetPlantTypes ()

Gets the plant types.

Returns

A list of all the plant types in the system.

2.10.1.4 void RNAProjectServices.Maintenance.PlantTypesService.RemovePlantType (string *plantTypeId*)

Removes the plant type.

Parameters

<i>plantTypeId</i>	The plant type id.
--------------------	--------------------

2.10.1.5 void RNAProjectServices.Maintenance.PlantTypesService.UpdatePlantType (PlantTypeData *updatedPlantType*)

Updates the plant type.

Parameters

<i>updatedPlantType</i>	The updated plant type details.
-------------------------	---------------------------------

2.11 RNAProjectServices.Maintenance.RegionalOfficeService Class Reference

This service provides functions that allow the regional offices held in the system to be manipulated.

2.11.1 Member Function Documentation

2.11.1.1 void RNAProjectServices.Maintenance.RegionalOfficeService.AddRegionalOffice (RegionalOfficeData *newRegionalOffice*)

Adds a regional office.

Parameters

<i>newRegionalOffice</i>	The new regional office.
--------------------------	--------------------------

2.11.1.2 RegionalOfficeData RNAProjectServices.Maintenance.RegionalOfficeService.GetRegionalOfficeDetails (string *regionalOfficeId*)

Gets the regional office details.

Parameters

<i>regionalOfficeId</i>	The regional office id.
-------------------------	-------------------------

Returns

The details of the specified regional office.

2.11.1.3 List<SimpleRegionalOfficeData> RNAProjectServices.Maintenance.RegionalOfficeService.GetRegionalOffices ()

Gets the regional offices.

Returns

A list of regional offices.

2.11.1.4 void RNAProjectServices.Maintenance.RegionalOfficeService.RemoveRegionalOffice (string *regionalOfficeId*)

Removes the regional office.

Parameters

<i>regionalOfficeId</i>	The regional office id.
-------------------------	-------------------------

2.11.1.5 void RNAProjectServices.Maintenance.RegionalOfficeService.UpdateRegionalOffice (RegionalOfficeData *updatedRegionalOfficeDetails*)

Updates the regional office.

Parameters

<i>updatedRegionalOfficeDetails</i>	The updated regional office details.
-------------------------------------	--------------------------------------

2.12 RNAProjectServices.Maintenance.ServiceTypesService Class Reference

This service provides functions that allow the service types held in the system to be manipulated.

2.12.1 Member Function Documentation

2.12.1.1 void RNAProjectServices.Maintenance.ServiceTypesService.AddServiceType (ServiceTypeData newServiceType)

Adds a new service type.

Parameters

<i>newServiceType</i>	The new service type.
-----------------------	-----------------------

2.12.1.2 List<PlantRequiredData> RNAProjectServices.Maintenance.ServiceTypesService.GetPlant-RequiredForService (string serviceTypeId)

Gets the plant required for a service.

Parameters

<i>serviceTypeId</i>	The service type id.
----------------------	----------------------

Returns

A list of plant that is required to carry out the service.

2.12.1.3 ServiceTypeData RNAProjectServices.Maintenance.ServiceTypesService.GetServiceTypeDetails (string serviceTypeId)

Gets the service type details.

Parameters

<i>serviceTypeId</i>	The service type id.
----------------------	----------------------

Returns

The details of a service type.

2.12.1.4 List<ServiceTypeData> RNAProjectServices.Maintenance.ServiceTypesService.GetServiceTypes ()

Gets the service types.

Returns

A list of all the service types in the system.

2.12.1.5 void RNAProjectServices.Maintenance.ServiceTypesService.RemoveServiceType (string serviceTypeId)

Removes the service type.

Parameters

<i>serviceTypeId</i>	The service type id.
----------------------	----------------------

2.12.1.6 void RNAProjectServices.Maintenance.ServiceTypesService.UpdateServiceType (ServiceTypeData updatedServiceTypeDetails)

Updates the service type.

Parameters

<i>updatedService- TypeDetails</i>	The updated service type details.
--	-----------------------------------

2.13 RNAProjectServices.Maintenance.SitesService Class Reference

This service provides functions that allow the addresses held in the system to be manipulated.

2.13.1 Member Function Documentation

2.13.1.1 void RNAProjectServices.Maintenance.SitesService.AddSite (SiteData newSiteDetails)

Adds a new site to the system.

Parameters

<i>newSiteDetails</i>	The new site details.
-----------------------	-----------------------

2.13.1.2 List<SiteData> RNAProjectServices.Maintenance.SitesService.GetCustomerSites (string customerId)

Gets the customer sites.

Parameters

<i>customerId</i>	The customer id.
-------------------	------------------

Returns

A list of sites related to the specified customer.

2.13.1.3 SiteData RNAProjectServices.Maintenance.SitesService.GetSiteDetails (string siteId)

Gets the site details.

Parameters

<i>siteId</i>	The site id.
---------------	--------------

Returns

The details of the specified site.

2.13.1.4 List<SimpleSiteData> RNAProjectServices.Maintenance.SitesService.GetSitesList ()

Gets the sites list.

Returns

A list containing all the sites in the system.

2.13.1.5 bool RNAProjectServices.Maintenance.SitesService.RemoveSite (string *siteId*)

Removes a site.

Parameters

<i>siteId</i>	The site id.
---------------	--------------

Returns

`true` if the site is removed successfully; otherwise, `false`.

2.13.1.6 void RNAProjectServices.Maintenance.SitesService.UpdateSiteDetails (SiteData *updatedSiteDetails*)

Updates the site details.

Parameters

<i>updatedSite-Details</i>	The updated site details.
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2.14 RNAProjectServices.Maintenance.SubcontractorService Class Reference

This service provides functions that allow the subcontractors held in the system to be manipulated.

2.14.1 Member Function Documentation

2.14.1.1 void RNAProjectServices.Maintenance.SubcontractorService.AddSubcontractor (SubcontractorData *newSubcontractor*)

Adds a new subcontractor to the system.

Parameters

<i>new-Subcontractor</i>	The new subcontractor.
--------------------------	------------------------

2.14.1.2 SubcontractorData RNAProjectServices.Maintenance.SubcontractorService.GetSubcontractor-Details (string *subcontractorId*)

Gets the subcontractor details.

Parameters

<i>subcontractorId</i>	The subcontractor id.
------------------------	-----------------------

Returns

The details held about the specified subcontractor.

2.14.1.3 List<SubcontractorData> RNAProjectServices.Maintenance.SubcontractorService.GetSubcontractors ()

Gets all the subcontractors in the system.

Returns

A list of all the subcontractors held in the system.

2.14.1.4 void RNAProjectServices.Maintenance.SubcontractorService.RemoveSubcontractor (string subcontractorId)

Removes the subcontractor from the system.

Parameters

<i>subcontractorId</i>	The subcontractor id of the subcontractor to remove.
------------------------	--

2.14.1.5 void RNAProjectServices.Maintenance.SubcontractorService.UpdateSubcontractor (SubcontractorData updatedSubcontractorDetails)

Updates the subcontractor.

Parameters

<i>updated-Subcontractor-Details</i>	The updated subcontractor details.
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2.15 RNAProjectServices.Mapping.AddressMappingService Class Reference

This service provides a method to get the GPS coordinates of all of the addresses in the system for mapping purposes.

2.15.1 Member Function Documentation

2.15.1.1 List<AddressMappingData> RNAProjectServices.Mapping.AddressMappingService.GetAllAddressMappingGPSCoordinates ()

Gets all of the address in the system with their GPS coordinates.

Returns

A list of addresses along with their GPS coordinates, providing the address has been associated with GPS coordinates.

2.16 RNAProjectServices.Mapping.JobRouteService Class Reference

This service provides a method to get the GPS coordinates related to a job in the system for mapping purposes.

2.16.1 Member Function Documentation

2.16.1.1 List<JobRouteLocationData> RNAProjectServices.Mapping.JobRouteService.GetJobRouteGPS-Coordinates (string *jobId*)

Gets the GPS coordinates related to a job in the system.

Parameters

<i>jobId</i>	The job id.
--------------	-------------

Returns

A list of GPS coordinates that are related to the specified job.

2.17 RNAProjectServices.Mapping.OperatorLogLocationService Class Reference

This service provides a method to get operator log GPS coordinates for mapping purposes.

2.17.1 Member Function Documentation

2.17.1.1 List<OperatorLogLocationData> RNAProjectServices.Mapping.OperatorLogLocation-Service.GetOperatorLogCoordinates (string *operatorId*, DateTime *from*, DateTime *to*, int *logType*)

Gets the operator log coordinates for an operator between two dates.

Parameters

<i>operatorId</i>	The operator id.
<i>from</i>	From date.
<i>to</i>	To date.
<i>logType</i>	The log type to get the coordinates for.

Returns

GPS log coordinates for the specified operator that were recorded between the dates given.

2.18 RNAProjectServices.Mapping.OperatorTrackingService Class Reference

This responsibility of this service to allow GPS information related operators to be retrieved.

2.18.1 Member Function Documentation

2.18.1.1 List<OperatorLocationData> RNAProjectServices.Mapping.OperatorTrackingService.GetAll-OperatorsCurrentPosition (double *withinHours*)

Gets the current position of all of the operators.

Parameters

<i>withinHours</i>	The number of hours the GPS coordinates must have been recorded within.
--------------------	---

Returns

A list, containing the current position of each operator, providing they were recorded within the number of hours specified.

2.18.1.2 List<OperatorLocationData> RNAProjectServices.Mapping.OperatorTrackingService.GetAllOperatorsLastKnownPosition ()

Gets the last known position of all of the operators.

Returns

A list, containing the last recorded GPS coordinates of each operator.

2.18.1.3 OperatorLocationData RNAProjectServices.Mapping.OperatorTrackingService.GetOperatorMostRecentPosition (string operatorId)

Gets the operators most recent position.

Parameters

<i>operatorId</i>	The operator id.
-------------------	------------------

Returns

The GPS coordinates of the operators last recorded position.

2.18.1.4 List<OperatorLocationData> RNAProjectServices.Mapping.OperatorTrackingService.GetOperatorPositionsBetweenDates (string operatorId, DateTime from, DateTime to)

Gets the GPS locations for an operator between dates.

Parameters

<i>operatorId</i>	The operator id.
<i>from</i>	From date.
<i>to</i>	To date.

Returns

A list of GPS coordinates for the operator that were recorded between the dates given.

2.19 RNAProjectServices.Mapping.PlantTrackingService Class Reference

This responsibility of this service to allow GPS information related plant items to be retrieved.

2.19.1 Member Function Documentation

2.19.1.1 List<PlantLocationData> RNAProjectServices.Mapping.PlantTrackingService.GetAllPlantCurrent-Position (double *withinHours*)

Gets the current position of all of the plant items.

Parameters

<i>withinHours</i>	The number of hours the GPS coordinates must have been recorded within.
--------------------	---

Returns

A list, containing the current position of each plant item, providing they were recorded within the number of hours specified.

2.19.1.2 List<PlantLocationData> RNAProjectServices.Mapping.PlantTrackingService.GetAllPlantLast-KnownPosition ()

Gets the last known position of all of the plant items.

Returns

A list, containing the last recorded GPS coordinates of each plant item.

2.19.1.3 PlantLocationData RNAProjectServices.Mapping.PlantTrackingService.GetPlantMostRecent-Position (string *plantId*)

Gets the plant items most recent position.

Parameters

<i>operatorId</i>	The plant item id.
-------------------	--------------------

Returns

The GPS coordinates of the plant items last recorded position.

2.19.1.4 List<PlantLocationData> RNAProjectServices.Mapping.PlantTrackingService.-GetPlantPositionsBetweenDates (string *plantId*, DateTime *from*, DateTime *to*)

Gets the GPS locations for a plant item between dates.

Parameters

<i>operatorId</i>	The plant item id.
<i>from</i>	From date.
<i>to</i>	To date.

Returns

A list of GPS coordinates for the plant item that were recorded between the dates given.

2.20 RNAProjectServices.Messaging.MessageService Class Reference

This service is responsible for providing all functionality relating to the messaging section of the application. This includes sending messages, getting message details and deleting messages.

2.20.1 Member Function Documentation

2.20.1.1 void RNAProjectServices.Messaging.MessageService.DeleteMessage (string *messageld*)

Deletes a message from the system.

Parameters

<i>messageld</i>	The message id of the message to delete.
------------------	--

2.20.1.2 List<MessageData> RNAProjectServices.Messaging.MessageService.GetInboxMessages (string *operativeld*)

Gets the inbox messages for an operator.

Parameters

<i>operativeld</i>	The operative id.
--------------------	-------------------

Returns

A list of messages that have been sent to the specified operator.

2.20.1.3 MessageData RNAProjectServices.Messaging.MessageService.GetMessageDetails (string *messageld*)

Gets the message details.

Parameters

<i>messageld</i>	The message id of the message to get the details of.
------------------	--

Returns

The details of the specified message.

2.20.1.4 List<MessageData> RNAProjectServices.Messaging.MessageService.GetOutboxMessages (string *operativeld*)

Gets the outbox messages for an operator.

Parameters

<i>operativeld</i>	The operative id.
--------------------	-------------------

Returns

A list of messages that the specified operator has sent.

2.20.1.5 void **RNAProjectServices.Messaging.MessageService.SendMessage** (**NewMessageData** *newMessage*)

Sends a message.

Parameters

<i>newMessage</i>	The new message to send.
-------------------	--------------------------

2.20.1.6 void **RNAProjectServices.Messaging.MessageService.UpdateMessageReadStatus** (**string** *messageId*)

Updates the message read status.

Parameters

<i>messageId</i>	The message id of the message to update.
------------------	--

2.21 RNAProjectServices.Settings.SettingsService Class Reference

This service is responsible for providing all functionality relating to the settings section of the application. Among other things, it allows you to update the company details, set minimum and maximum job durations and set the boundaries for evening and weekend work.

2.21.1 Member Function Documentation

2.21.1.1 **CompanyDetailsSettingsData** **RNAProjectServices.Settings.SettingsService.GetCompanyDetailsSettings** ()

Gets the company details that are held in the database.

Returns

The company details.

2.21.1.2 **HintsAndWarningsSettingsData** **RNAProjectServices.Settings.SettingsService.GetHintsAndWarningsSettings** ()

Gets the hints and warnings settings.

Returns

The hints and warnings settings.

2.21.1.3 **JobSettingsData** **RNAProjectServices.Settings.SettingsService.GetJobSettings** ()

Gets the settings information relating to jobs. This includes minimum and maximum job durations and weekend and evening boundaries.

Returns

The minimum and maximum job durations and evening and weekend boundaries.

2.21.1.4 double RNAProjectServices.Settings.SettingsService.GetVatValue ()

Gets the vat value.

Returns

The VAT value being used by the system.

2.21.1.5 List<PlantMaintenanceWarningData> RNAProjectServices.Settings.SettingsService.RunWarningCheck (HintsAndWarningsSettingsData hintsAndWarningsData)

Runs the warning check on plant items.

Parameters

<i>hintsAndWarningsData</i>	The hints and warnings data.
-----------------------------	------------------------------

Returns

A list of plant items that require some form of maintenance within the specified time.

2.21.1.6 void RNAProjectServices.Settings.SettingsService.UpdateCompanyDetailsSettings (CompanyDetailsSettingsData updatedDetails)

Updates the company details.

Parameters

<i>updatedDetails</i>	The updated details.
-----------------------	----------------------

2.21.1.7 void RNAProjectServices.Settings.SettingsService.UpdateHintsAndWarningsSettings (HintsAndWarningsSettingsData hintsAndWarningsData)

Updates the hints and warnings settings.

Parameters

<i>hintsAndWarningsData</i>	The hints and warnings data.
-----------------------------	------------------------------

2.21.1.8 void RNAProjectServices.Settings.SettingsService.UpdateJobSettings (JobSettingsData updatedDetails)

Updates the job settings.

Parameters

<i>updatedDetails</i>	The updated details.
-----------------------	----------------------

2.22 RNAProjectServices.UserDetails.UserDetailsService Class Reference

This service is responsible for managing the users of the system. Functions include creating, updating and deleting users.

2.22.1 Member Function Documentation

2.22.1.1 void RNAProjectServices.UserDetails.UserDetailsService.AddUser (UserData *newUser*)

Adds a user to the system.

Parameters

<i>newUser</i>	The new user.
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2.22.1.2 bool RNAProjectServices.UserDetails.UserDetailsService.ChangeUserPassword (string *userId*, string *oldPassword*, string *newPassword*)

Changes the user password.

Parameters

<i>userId</i>	The user id.
<i>oldPassword</i>	The old password.
<i>newPassword</i>	The new password.

Returns

`true` if the password was changed successfully; otherwise, `false`.

2.22.1.3 UserData RNAProjectServices.UserDetails.UserDetailsService.GetUserDetails (string *userId*)

Gets the details of a user.

Parameters

<i>userId</i>	The user id.
---------------	--------------

Returns

The details of the specified user.

2.22.1.4 string RNAProjectServices.UserDetails.UserDetailsService.GetUserIdFromLoginName (string *loginName*)

Gets the user id of a user from a login name.

Parameters

<i>loginName</i>	The login name.
------------------	-----------------

Returns

The ID of the specified user.

2.22.1.5 `int RNAProjectServices.UserDetails.UserDetailsService.GetUserRightsLevel (string loginName)`

Gets the user rights level for the specified user.

Parameters

<i>loginName</i>	The login name of the user to get the rights level of.
------------------	--

Returns

An integer representing the users rights level.

2.22.1.6 `List<UserData> RNAProjectServices.UserDetails.UserDetailsService.GetUsers ()`

Gets all of the users.

Returns

A list of all the users of the system.

2.22.1.7 `bool RNAProjectServices.UserDetails.UserDetailsService.IsLoginNameUnique (string userId, string loginName)`

Determines whether a login name is unique and isn't the same as the specified user.

Parameters

<i>userId</i>	The user id.
<i>loginName</i>	The login name.

Returns

`true` if the login name is unique; otherwise, `false`.

2.22.1.8 `bool RNAProjectServices.UserDetails.UserDetailsService.IsNewLoginNameUnique (string loginName)`

Determines whether a new login name is unique.

Parameters

<i>loginName</i>	The login name.
------------------	-----------------

Returns

`true` if the new login name is unique; otherwise, `false`.

2.22.1.9 void RNAProjectServices.UserDetails.UserDetailsService.RemoveUser (string *userId*)

Removes a user from the system.

Parameters

<i>userId</i>	The user id.
---------------	--------------

2.22.1.10 void RNAProjectServices.UserDetails.UserDetailsService.UpdateUserDetails (UserData *updatedUserDetails*)

Updates the user details.

Parameters

<i>updatedUser-Details</i>	The updated user details.
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2.23 RNAProjectServices.FTPUpload.FtpHandler Class Reference

This class handles uploading files to the FTP server, bypassing the need to communicate with the Glimpse Middleware. Its main responsibility is to upload XML files for the PDAs/devices to access. The files may contain details of jobs, messages, a list of operators or a list of plant items. Job and message XML files are uploaded to a directory matching the ID of the operator it is destined for.

2.23.1 Member Function Documentation**2.23.1.1 bool RNAProjectServices.FTPUpload.FtpHandler.CallbackJob (string *jobId*)**

Calls the job back from an operator.

Parameters

<i>jobId</i>	The job id of the job to callback.
--------------	------------------------------------

Returns

`true` if the job is callback successfully; otherwise, `false`.

2.23.1.2 bool RNAProjectServices.FTPUpload.FtpHandler.SendJobToOperator (string *jobId*)

Sends the job to its allocated operator.

Parameters

<i>jobId</i>	The job id of the job to send.
--------------	--------------------------------

Returns

`true` if the job is sent successfully; otherwise, `false`.

2.23.1.3 bool RNAProjectServices.FTPUpload.FtpHandler.SendOperatorListToPDAs ()

Sends the operator list to PDAs.

Returns

`true` if the operator list is sent successfully; otherwise, `false`.

2.23.1.4 bool RNAProjectServices.FTPUpload.FtpHandler.SendPlantListToPDAs ()

Sends the plant list to PDAs.

Returns

`true` if the plant list is sent successfully; otherwise, `false`.

2.23.1.5 bool RNAProjectServices.FTPUpload.FtpHandler.UploadMessage (Message *messageDetails*)

Uploads the message to the FTP server so it can be retrieved by an operator on their PDA/device in the field.

Parameters

<i>messageDetails</i>	The message details.
-----------------------	----------------------

Returns

`true` if the message is uploaded successfully; otherwise, `false`.

2.24 RNAProject.PublicFunctions Class Reference

This class provides functions that are used by several other classes throughout the application.

2.24.1 Member Function Documentation

2.24.1.1 static string RNAProject.PublicFunctions.CreateUniqueId (string *prefix*) [static]

Creates a unique id with a prefix.

Parameters

<i>prefix</i>	The prefix to apply to the id.
---------------	--------------------------------

Returns

A unique id which is prefixed with the given string.

2.24.1.2 `static string RNAProject.PublicFunctions.HashPassword (string password) [static]`

Hashes a password.

Parameters

<i>password</i>	The password to hash
-----------------	----------------------

Returns

The hashed password as a 128 character hex string

2.24.1.3 `static bool RNAProject.PublicFunctions.ValidatePassword (string password, string correctHash) [static]`

Validates a password.

Parameters

<i>password</i>	The password to test
<i>correctHash</i>	The hash of the correct password

Returns

True if password is the correct password, false otherwise

Chapter 3

RNA Project MVC Application - Class Documentation

This chapter of the document breaks down and discusses each of the classes that have been created in the MVC application (presentation layer). The majority of the classes are controllers that contain actions and have a return type of 'ActionResult'. In general, this will be some form of HTML to display to the user. Each of the classes have a brief description and all of their public methods are described. The name, return type and parameters of each method are given.

3.1 RNAProjectMVCApp.Controllers.AccountController Class Reference

Provides the necessary functions to allow users to log on to and off of the application.

3.1.1 Member Function Documentation

3.1.1.1 ActionResult RNAProjectMVCApp.Controllers.AccountController.LogOff ()

Logs the user off the application.

Returns

A log in page.

3.1.1.2 ActionResult RNAProjectMVCApp.Controllers.AccountController.LogOn ()

Displays the log in screen.

Returns

A log in page.

3.1.1.3 ActionResult RNAProjectMVCApp.Controllers.AccountController.LogOn (LogOnModel *model*, string *returnUrl*)

Makes an attempt to log the user into the application.

Parameters

<i>model</i>	The log in details.
<i>returnUrl</i>	The return URL.

Returns

A log in page if authentication is unsuccessful; Otherwise the page at the return url.

3.2 RNAProjectMVCApp.Controllers.AddressGridController Class Reference

Provides the functionality for the address grid. This includes getting addresses, adding addresses and removing addresses.

3.2.1 Member Function Documentation

3.2.1.1 ActionResult RNAProjectMVCApp.Controllers.AddressGridController._AddAddress (AddressModel newAddressModel, bool viewUnlinked)

Adds an address to the system.

Parameters

<i>newAddress-Model</i>	The new address to add.
<i>viewUnlinked</i>	if set to <code>true</code> only the unlinked addresses are returned; Otherwise all of the addresses are returned.

Returns

The contents for a Telerik Grid. Filled with addresses.

3.2.1.2 ActionResult RNAProjectMVCApp.Controllers.AddressGridController._AddressGrid (bool viewUnlinked)

Gets all of the addresses in the system or only the unlinked addresses, to be used with a Telerik Grid.

Parameters

<i>viewUnlinked</i>	if set to <code>true</code> only the unlinked addresses are returned; Otherwise all of the addresses are returned.
---------------------	--

Returns

A GridModel filled with addresses. Either all of the addresses in the system or just the unlinked addresses.

3.2.1.3 ActionResult RNAProjectMVCApp.Controllers.AddressGridController._AddressLinksGrid (string addressId)

Gets the contents for a Telerik Grid. The contents will be all the associations with specified address.

Parameters

<i>addressId</i>	The address id.
------------------	-----------------

Returns

The contents for a Telerik Grid. Filled with the specified address' associations.

3.2.1.4 ActionResult RNAProjectMVCAApp.Controllers.AddressGridController._DeleteAddress (string *id*, bool *viewUnlinked*)

Deletes an address.

Parameters

<i>id</i>	The id of the address to delete.
<i>viewUnlinked</i>	if set to <code>true</code> only the unlinked addresses are returned; Otherwise all of the addresses are returned.

Returns

The contents for a Telerik Grid. Filled with addresses.

3.2.1.5 ActionResult RNAProjectMVCAApp.Controllers.AddressGridController._UpdateAddress (AddressModel *updatedAddressModel*, bool *viewUnlinked*)

Updates an address.

Parameters

<i>updated-AddressModel</i>	The updated address details.
<i>viewUnlinked</i>	if set to <code>true</code> only the unlinked addresses are returned; Otherwise all of the addresses are returned.

Returns

The contents for a Telerik Grid. Filled with addresses.

3.3 RNAProjectMVCAApp.Controllers.AdministrationController Class Reference

This class provides the functionality for the administration section of the application.

3.3.1 Member Function Documentation

3.3.1.1 JsonResult RNAProjectMVCAApp.Controllers.AdministrationController._GetDropDownListSites (string *customerId*)

Gets the sites related to a particular customer.

Parameters

<i>customerId</i>	The customer id.
-------------------	------------------

Returns

A list of customer sites formatted as JSON.

3.3.1.2 ActionResult RNAProjectMVCAApp.Controllers.AdministrationController.AddOrder ()

Displays the 'Add Order' page. This allows the user to add an order to the system.

Returns

A page allowing the user to add an order to the system.

3.3.1.3 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.AddOrder (OrderModel *order*, OrderRatesModel *rates*)

Attempts to add an order to the system.

Parameters

<i>order</i>	The order to add.
<i>rates</i>	The order rates.

Returns

If the order is added successfully then it displays the 'Order Details' page; Otherwise it displays the 'Add Order' page with errors.

3.3.1.4 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.Addresses ()

Displays the addresses page.

Returns

The addresses page.

3.3.1.5 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.Administration ()

Displays the administration page.

Returns

The administration page.

3.3.1.6 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.AllAddresses ()

Displays the 'All Addresses' page which shows all of the addresses in the system.

Returns

The 'All Addresses' page.

3.3.1.7 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.EditOrder (string *orderId*, string *customerId*)

Displays the 'Edit Order' screen which allows a user to edit an order.

Parameters

<i>orderId</i>	The order id of the order.
<i>customerId</i>	The customer id of the customer related to the order.

Returns

A page allowing the user to edit the specified order.

3.3.1.8 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.EditOrder (OrderModel updatedOrder, OrderRatesModel updatedRates)

Attempts to edit the order in the system.

Parameters

<i>updatedOrder</i>	The updated order.
<i>updatedRates</i>	The updated rates.

Returns

If the order is edited successfully then it displays the 'Order Details' page; Otherwise it displays the 'Edit Order' page with errors.

3.3.1.9 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.Index ()

Displays an index page.

Returns

An index page

3.3.1.10 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.OrderDetails (string orderId)

Displays the details of a particular order.

Parameters

<i>orderId</i>	The order id.
----------------	---------------

Returns

A page showing the details of the specified order.

3.3.1.11 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.Orders ()

Displays the 'Orders' page.

Returns

The 'Orders' page.

3.3.1.12 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.OrdersList ()

Displays a page that contains a list of all of the orders in the system.

Returns

The 'Orders List' page which contains a list of all of the orders in the system.

3.3.1.13 JsonResult RNAProjectMVCApp.Controllers.AdministrationController.RemoveOrder (string *orderId*)

Removes an order from the system.

Parameters

<i>orderId</i>	The order id of the order to remove.
----------------	--------------------------------------

Returns

JSON which includes a message denoting whether the deletion was successful or not.

3.3.1.14 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.ServiceRates (string *serviceld*, string *customerld*)

Displays the service rates for a particular customer and service.

Parameters

<i>serviceld</i>	The service id.
<i>customerld</i>	The customer id.

Returns

A page showing the service rates for the customer and the particular service.

3.3.1.15 ActionResult RNAProjectMVCApp.Controllers.AdministrationController.UnlinkedAddresses ()

Displays the 'Unlinked Addresses' page which shows all of the addresses in the system that are not linked to another entity in the system.

Returns

The 'Unlinked Addresses' page.

3.4 RNAProjectMVCApp.Controllers.CustomersController Class Reference

This class provides the functionality for the customers section of the application.

3.4.1 Member Function Documentation**3.4.1.1 ActionResult RNAProjectMVCApp.Controllers.CustomersController.AddCustomer ()**

Displays the 'Add Customer' page. This allows the user to add a customer to the system.

Returns

A page allowing the user to add a customer to the system.

3.4.1.2 ActionResult RNAProjectMVCApp.Controllers.CustomersController.AddCustomer (CustomerModel *newCustomerDetails*)

Attempts to add a customer to the system.

Parameters

<i>newCustomer-Details</i>	The new customer details.
----------------------------	---------------------------

Returns

If the customer is added successfully then it displays the 'Customer Details' page; Otherwise it displays the 'Add Customer' page with errors.

3.4.1.3 ActionResult RNAProjectMVCApp.Controllers.CustomersController.AddRegionalOffice ()

Displays the 'Add Regional Office' page. This allows the user to add a regional office to the system.

Returns

A page allowing the user to add a regional office to the system.

3.4.1.4 ActionResult RNAProjectMVCApp.Controllers.CustomersController.AddRegionalOffice (RegionalOfficeModel *newRegionalOfficeDetails*)

Attempts to add a regional office to the system.

Parameters

<i>newRegional-OfficeDetails</i>	The new regional office details to add.
----------------------------------	---

Returns

If the regional office is added successfully then it displays the 'Regional Office Details' page; Otherwise it displays the 'Add Regional Office' page with errors.

3.4.1.5 ActionResult RNAProjectMVCApp.Controllers.CustomersController.AddSite ()

Displays the 'Add Site' page. This allows the user to add a site to the system.

Returns

A page allowing the user to add a site to the system.

3.4.1.6 ActionResult RNAProjectMVCApp.Controllers.CustomersController.AddSite (CustomerSiteLinkData *newSiteDetails*)

Attempts to add the new site to the system.

Parameters

<i>newSiteDetails</i>	The new site details.
-----------------------	-----------------------

Returns

If the site is added successfully then it displays the 'Site Details' page; Otherwise it displays the 'Add Site' page with errors.

3.4.1.7 ActionResult RNAProjectMVCApp.Controllers.CustomersController.CustomerDetails (string *customerId*)

Displays the details of a particular customer.

Parameters

<i>customerId</i>	The customer id.
-------------------	------------------

Returns

A page showing the details of the specified customer.

3.4.1.8 ActionResult RNAProjectMVCApp.Controllers.CustomersController.CustomerRates (string *customerId*, string *customerName*)

Displays the 'Customer Rates' screen.

Parameters

<i>customerId</i>	The customer id.
<i>customerName</i>	Name of the customer.

Returns

The 'Customer Rates' page.

3.4.1.9 ActionResult RNAProjectMVCApp.Controllers.CustomersController.Customers ()

Displays the customers page.

Returns

The customers page.

3.4.1.10 ActionResult RNAProjectMVCApp.Controllers.CustomersController.CustomerServiceRate (string *serviceType*, string *customerId*)

Displays the service rates of a service for a particular customer.

Parameters

<i>serviceType</i>	The service type id.
<i>customerId</i>	The customer id.

Returns

A page showing the service rates of the specified service for the particular customer.

3.4.1.11 ActionResult RNAProjectMVCApp.Controllers.CustomersController.CustomerServiceRate (CustomerRateModel *customerRateDetails*, string *button*)

Attempts to update the service rates of a service for a customer.

Parameters

<i>customerRate-Details</i>	The customer rate details.
<i>button</i>	The name of the button that was pressed to call the action.

Returns

The 'Customer Service Rate' screen.

3.4.1.12 ActionResult RNAProjectMVCApp.Controllers.CustomersController.CustomerServiceRate (string *serviceType*, string *customerId*, bool *remove*)

Attempts to remove the service rates of a service for a particular customer.

Parameters

<i>serviceType</i>	The service type id.
<i>customerId</i>	The customer id.
<i>remove</i>	if set to <code>true</code> remove the service rates.

Returns

The 'Customer Service Rate' screen.

3.4.1.13 ActionResult RNAProjectMVCApp.Controllers.CustomersController.CustomersList ()

Displays a page that contains a list of all of the customers in the system.

Returns

The 'Customers List' page which contains a list of all of the customers in the system.

3.4.1.14 ActionResult RNAProjectMVCApp.Controllers.CustomersController.DisplayCustomerServiceRate (string *serviceType*, string *customerId*)

Displays the service rates of a service for a particular customer.

Parameters

<i>serviceType</i>	The service type id.
<i>customerId</i>	The customer id.

Returns

A page showing the service rates of the specified service for the particular customer.

3.4.1.15 ActionResult RNAProjectMVCApp.Controllers.CustomersController.EditCustomer (string *customerId*)

Displays the 'Edit Customer' screen which allows a user to edit the details of a customer.

Parameters

<i>customerId</i>	The customer id.
-------------------	------------------

Returns

A page allowing the user to edit the details of the specified customer.

3.4.1.16 ActionResult RNAProjectMVCApp.Controllers.CustomersController.EditCustomer (CustomerModel updatedCustomerDetails)

Attempts to edit the customer details in the system.

Parameters

<i>updated-CustomerDetails</i>	The updated customer details.
--------------------------------	-------------------------------

Returns

If the customer details are edited successfully then it displays the 'Customer Details' page; Otherwise it displays the 'Edit Customer' page with errors.

3.4.1.17 ActionResult RNAProjectMVCApp.Controllers.CustomersController.EditRegionalOffice (string regionalOfficeld)

Displays the 'Edit Regional Office' screen which allows a user to edit the details of a regional office.

Parameters

<i>regionalOfficeld</i>	The regional office id of the regional office you want to edit.
-------------------------	---

Returns

A page allowing the user to edit the details of the specified regional office.

3.4.1.18 ActionResult RNAProjectMVCApp.Controllers.CustomersController.EditRegionalOffice (RegionalOfficeModel updatedRegionalOfficeDetails)

Attempts to edit the regional office details in the system.

Parameters

<i>updated-RegionalOffice-Details</i>	The updated regional office details.
---------------------------------------	--------------------------------------

Returns

If the regional office is edited successfully then it displays the 'Regional Office Details' page; Otherwise it displays the 'Edit Regional Office' page with errors.

3.4.1.19 ActionResult RNAProjectMVCApp.Controllers.CustomersController.EditSite (string siteld)

Displays the 'Edit Site' screen which allows a user to edit a site.

Parameters

<i>siteId</i>	The site id.
---------------	--------------

Returns

A page allowing the user to edit the specified site.

3.4.1.20 ActionResult RNAProjectMVCApp.Controllers.CustomersController.EditSite (CustomerSiteLinkData updatedSiteDetails)

Attempts to edit the site in the system.

Parameters

<i>updatedSite-Details</i>	The updated site details.
----------------------------	---------------------------

Returns

If the site is edited successfully then it displays the 'Site Details' page; Otherwise it displays the 'Edit Site' page with errors.

3.4.1.21 ActionResult RNAProjectMVCApp.Controllers.CustomersController.Index ()

Displays an index page.

Returns

The index page.

3.4.1.22 ActionResult RNAProjectMVCApp.Controllers.CustomersController.RegionalOfficeDetails (string regionalOfficeId)

Displays the details of a particular regional office.

Parameters

<i>regionalOfficeId</i>	The regional office id.
-------------------------	-------------------------

Returns

A page showing the details of the specified regional office.

3.4.1.23 ActionResult RNAProjectMVCApp.Controllers.CustomersController.RegionalOffices ()

Displays the 'Regional Offices' screen.

Returns

The 'Regional Offices' page.

3.4.1.24 ActionResult RNAProjectMVCApp.Controllers.CustomersController.RegionalOfficesList ()

Displays a page that contains a list of all of the regional offices in the system.

Returns

The 'Regional Offices List' page which contains a list of all of the regional offices in the system.

3.4.1.25 ActionResult RNAProjectMVCApp.Controllers.CustomersController.RemoveCustomer (string *customerId*)

Removes a customer from the system.

Parameters

<i>customerId</i>	The customer id of the customer you want to remove.
-------------------	---

Returns

If successful, the 'Customers List' page with the customer removed; Otherwise the 'Customers List' page without the customer removed.

3.4.1.26 ActionResult RNAProjectMVCApp.Controllers.CustomersController.RemoveRegionalOffice (string *regionalOfficeId*)

Removes a regional office from the system.

Parameters

<i>regionalOfficeId</i>	The regional office id.
-------------------------	-------------------------

Returns

If successful, the 'Regional Offices List' page with the regional office removed; Otherwise the 'Regional Offices List' page without the regional office removed

3.4.1.27 JsonResult RNAProjectMVCApp.Controllers.CustomersController.RemoveSite (string *siteId*)

Removes a site from the system.

Parameters

<i>siteId</i>	The site id of the site to remove.
---------------	------------------------------------

Returns

JSON which includes a message denoting whether the deletion was successful or not.

3.4.1.28 ActionResult RNAProjectMVCApp.Controllers.CustomersController.SiteDetails (string *siteId*)

Displays the details of a particular site.

Parameters

<i>siteId</i>	The site id.
---------------	--------------

Returns

A page showing the details of the specified site.

3.4.1.29 ActionResult RNAProjectMVCApp.Controllers.CustomersController.Sites ()

Displays the sites page.

Returns

The sites page.

3.4.1.30 ActionResult RNAProjectMVCApp.Controllers.CustomersController.SitesList ()

Displays a page that contains a list of all of the sites in the system.

Returns

The 'Sites List' page which contains a list of all of the sites in the system.

3.5 RNAProjectMVCApp.Controllers.DiaryController Class Reference

This class provides the functionality for the diary section of the application.

3.5.1 Member Function Documentation

3.5.1.1 JsonResult RNAProjectMVCApp.Controllers.DiaryController._GetDropDownListOrders (string *siteId*)

Gets the orders related to a particular site.

Parameters

<i>siteId</i>	The site id.
---------------	--------------

Returns

A list of orders formatted as JSON.

3.5.1.2 JsonResult RNAProjectMVCApp.Controllers.DiaryController._GetDropDownListSites (string *customerId*)

Gets the sites related to a particular customer.

Parameters

<i>customerId</i>	The customer id.
-------------------	------------------

Returns

A list of customer sites formatted as JSON.

3.5.1.3 ActionResult RNAProjectMVCApp.Controllers.DiaryController._OperatorAssignedJobsGridSelect (DateTime *dateForJobs*)

Provides the content for the operator assigned jobs grid.

Parameters

<i>dateForJobs</i>	The start date of the jobs to fill the grid with.
--------------------	---

Returns

A GridModel containing all jobs assigned to operators for the given date.

3.5.1.4 ActionResult RNAProjectMVCApp.Controllers.DiaryController._SubcontractorAssignedJobsGrid-Select (DateTime *dateForJobs*)

Provides the content for the subcontractor assigned jobs grid.

Parameters

<i>dateForJobs</i>	The start date of the jobs to fill the grid with.
--------------------	---

Returns

A GridModel containing all jobs assigned to subcontractors for the given date.

3.5.1.5 ActionResult RNAProjectMVCApp.Controllers.DiaryController._UnallocatedJobsGridSelect (DateTime *dateForJobs*)

Provides the content for the unallocated jobs grid.

Parameters

<i>dateForJobs</i>	The start date of the jobs to fill the grid with.
--------------------	---

Returns

A GridModel containing all unallocated jobs for the given date.

3.5.1.6 ActionResult RNAProjectMVCApp.Controllers.DiaryController.CallbackJob (string *jobId*)

Callsback a job from its allocated operator.

Parameters

<i>jobId</i>	The job id of the job to callback.
--------------	------------------------------------

Returns

The 'Callback Job Success' page if the job is calledback successfully; Otherwise, the 'Callback Job Unsuccessful' page is displayed.

3.5.1.7 ActionResult RNAProjectMVCApp.Controllers.DiaryController.CallbackJobSuccess (string *jobId*)

Displays the 'Callback Job Success' page.

Parameters

<i>jobId</i>	The job id of the job that was calledback successfully.
--------------	---

Returns

The 'Callback Job Success' page.

3.5.1.8 ActionResult RNAProjectMVCApp.Controllers.DiaryController.CallbackJobUnsuccessful (string *jobId*)

Displays the 'Callback Job Unsuccessful' page.

Parameters

<i>jobId</i>	The job id of the job that was calledback unsuccessfully.
--------------	---

Returns

The 'Callback Job Unsuccessful' page.

3.5.1.9 ActionResult RNAProjectMVCApp.Controllers.DiaryController.CreateJob ()

Displays the 'Create Job' page. This allows the user to create jobs.

Returns

A page allowing the user to create a job.

3.5.1.10 ActionResult RNAProjectMVCApp.Controllers.DiaryController.CreateJob (NewJobModel *jobDetails*, JobRepeatPatternModel *repeatPattern*)

Attempts to add a the job to the system.

Parameters

<i>jobDetails</i>	The job details of the new job.
<i>repeatPattern</i>	The repeat pattern for the new job.

Returns

The 'Create Job Success' page if the job is created successfully; Otherwise, the 'Create Job' page is returned with errors.

3.5.1.11 ActionResult RNAProjectMVCApp.Controllers.DiaryController.CreateJobSuccess ()

Displays the 'Create Job Success' page. Stating that a job was created successfully.

Returns

The 'Create Job Success' page.

3.5.1.12 ActionResult RNAProjectMVCApp.Controllers.DiaryController.DeleteJob (string *jobId*)

Deletes a job.

Parameters

<i>jobId</i>	The job id of the job to delete.
--------------	----------------------------------

Returns

The 'Delete Job Success' page if the job is deleted successfully; Otherwise, the 'Delete Job Unsuccessful' page is displayed.

3.5.1.13 ActionResult RNAProjectMVCApp.Controllers.DiaryController.DeleteJobSuccess ()

Displays the 'Delete Job Success' page.

Returns

The 'Delete Job Success' page.

3.5.1.14 ActionResult RNAProjectMVCApp.Controllers.DiaryController.DeleteJobUnsuccessful ()

Displays the 'Delete Job Unsuccessful' page.

Returns

The 'Delete Job Unsuccessful' page.

3.5.1.15 ActionResult RNAProjectMVCApp.Controllers.DiaryController.FindJobs ()

Displays the 'Find Jobs' page.

Returns

The 'Find Jobs' page.

3.5.1.16 ActionResult RNAProjectMVCApp.Controllers.DiaryController.FindJobsByCustomerResult (string *customerId*)

Searches for all the jobs that were booked for a certain customer.

Parameters

<i>customerId</i>	The customer id.
-------------------	------------------

Returns

The 'Job Serarch Results' page with all jobs booked for the given customer.

3.5.1.17 ActionResult RNAProjectMVCApp.Controllers.DiaryController.FindJobsByDateBookedResult (DateTime *dateBooked*)

Searches for all the jobs that were booked on a certain date.

Parameters

<i>dateBooked</i>	The date booked.
-------------------	------------------

Returns

The 'Job Serarch Results' page with all jobs booked on the date given.

3.5.1.18 ActionResult RNAProjectMVCApp.Controllers.DiaryController.FindJobsByJobIdResult (string *jobId*)

Attempts to find a job by using a job id.

Parameters

<i>jobId</i>	The job id of the job you want to find.
--------------	---

Returns

The 'Job Details' page if the job exists; Otherwise, the 'Job Not Found' page is displayed.

3.5.1.19 ActionResult RNAProjectMVCApp.Controllers.DiaryController.FindJobsByOperatorResult (string *operatorId*)

Searches for all the jobs that were assigned to a certain operator.

Parameters

<i>operatorId</i>	The operator id.
-------------------	------------------

Returns

The 'Job Serarch Results' page with all jobs assigned to the given operator.

3.5.1.20 ActionResult RNAProjectMVCApp.Controllers.DiaryController.FindJobsByPlantResult (string *plantId*)

Searches for all the jobs that were assigned to a certain plant item.

Parameters

<i>plantId</i>	The plant id.
----------------	---------------

Returns

The 'Job Serarch Results' page with all jobs assigned to the given plant item.

3.5.1.21 ActionResult RNAProjectMVCApp.Controllers.DiaryController.FindJobsBySiteResult (string *siteId*)

Searches for all the jobs that were assigned to a certain site.

Parameters

<i>siteId</i>	The site id.
---------------	--------------

Returns

The 'Job Search Results' page with all jobs assigned to the given site.

3.5.1.22 ActionResult RNAProjectMVCApp.Controllers.DiaryController.FindJobsBySubcontractorResult (string *subcontractorId*)

Searches for all the jobs that were assigned to a certain subcontractor.

Parameters

<i>subcontractorId</i>	The subcontractor id.
------------------------	-----------------------

Returns

The 'Job Search Results' page with all jobs assigned to the given subcontractor.

3.5.1.23 double RNAProjectMVCApp.Controllers.DiaryController.GetAbsoluteTotal (DateTime *start*, DateTime *finish*, double *travel*, int *breakTime*)

Calculates the absolute total number of hours for a job.

Parameters

<i>start</i>	The start time.
<i>finish</i>	The finish time.
<i>travel</i>	The travel time.
<i>breakTime</i>	The break time.

Returns

The absolute number of hours for a job. Travel time is added and break time is taken away from the number of hours between start and finish times.

3.5.1.24 double RNAProjectMVCApp.Controllers.DiaryController.GetJobRate (string *orderId*, DateTime *start*)

Gets the job rate for an order based on the jobs start date.

Parameters

<i>orderId</i>	The order id.
<i>start</i>	The start date.

Returns

The job rate for an order based on the jobs start date.

3.5.1.25 ActionResult RNAProjectMVCApp.Controllers.DiaryController.Index (DateTime? *dateForJobs*, bool? *resultAsPartial*)

Displays the index page which shows the jobs for a particular day.

Parameters

<i>dateForJobs</i>	The date for jobs.
<i>resultAsPartial</i>	Determines whether the result is returned as partial view or not.

Returns

The index page showing the jobs for the specified date. If no date is specified then the current date is used.

3.5.1.26 ActionResult RNAProjectMVCApp.Controllers.DiaryController.JobAllocationDetails (string *jobId*, int *allocationType*)

Displays the 'Job Allocation Details' page.

Parameters

<i>jobId</i>	The job id.
<i>allocationType</i>	The job allocation type.

Returns

The 'Job Allocation Details' page.

3.5.1.27 ActionResult RNAProjectMVCApp.Controllers.DiaryController.JobDetails (string *jobId*)

Displays the details for a particular job.

Parameters

<i>jobId</i>	The job id.
--------------	-------------

Returns

The 'Job Details' screen showing the details of the specified job.

3.5.1.28 ActionResult RNAProjectMVCApp.Controllers.DiaryController.JobDetails (string *jobId*, bool *updateBooked*, bool *updateRequireSignature*, JobTimesModel *jobTimesDetails*, bool *requireSignature*, string *officeComments*)

Attempts to update details of a job based on the parameters provided.

Parameters

<i>jobId</i>	The job id.
<i>updateBooked</i>	if set to <code>true</code> update booked times related to the job.
<i>updateRequireSignature</i>	if set to <code>true</code> update require signature field for the job.
<i>jobTimesDetails</i>	The job times details.
<i>requireSignature</i>	if set to <code>true</code> job requires signature.
<i>officeComments</i>	The office comments.

Returns

The 'Job Details' screen with a dialog box stating whether the changes were made successfully or not.

3.5.1.29 ActionResult RNAProjectMVCApp.Controllers.DiaryController.JobNotFound (string *jobId*)

Displays the 'Job Not Found' page.

Parameters

<i>jobId</i>	The job id of the job that couldn't be found.
--------------	---

Returns

The 'Job Not Found' page.

3.5.1.30 ActionResult RNAProjectMVCApp.Controllers.DiaryController.JobRepeatPatternDetails ()

Displays the 'Job Repeat Pattern Details' page.

Returns

The 'Job Repeat Pattern Details' page.

3.5.1.31 ActionResult RNAProjectMVCApp.Controllers.DiaryController.JobSearchResults ()

Displays the 'Job Search Results' page.

Returns

The 'Job Search Results' page.

3.5.1.32 ActionResult RNAProjectMVCApp.Controllers.DiaryController.SendJob (string *jobId*)

Sends a job to its allocated operator.

Parameters

<i>jobId</i>	The job id of the job to send.
--------------	--------------------------------

Returns

The 'Send Job Success' page if the job is sent successfully; Otherwise, the 'Send Job Unsuccessful' page is displayed.

3.5.1.33 ActionResult RNAProjectMVCApp.Controllers.DiaryController.SendJobSuccess (string *jobId*)

Displays the 'Send Job Success' page.

Parameters

<i>jobId</i>	The job id of the job that was sent successfully.
--------------	---

Returns

The 'Send Job Success' page.

3.5.1.34 ActionResult RNAProjectMVCApp.Controllers.DiaryController.SendJobUnsuccessful (string *jobId*)

Displays the 'Send Job Unsuccessful' page.

Parameters

<i>jobId</i>	The job id of the job that was sent unsuccessfully.
--------------	---

Returns

The 'Send Job Unsuccessful' page.

3.5.1.35 ActionResult RNAProjectMVCApp.Controllers.DiaryController.SetActualJobTimes (string *jobId*)

Displays the 'Set Actual Job Times' page that allows a user to set the actual job times of a job.

Parameters

<i>jobId</i>	The job id to set the times of.
--------------	---------------------------------

Returns

The 'Set Actual Job Times' page for the specified job.

3.5.1.36 ActionResult RNAProjectMVCApp.Controllers.DiaryController.SetActualJobTimes (JobTimesModel *jobTimes*)

Attempts to set the actual job times for a job.

Parameters

<i>jobTimes</i>	The updated job times.
-----------------	------------------------

Returns

The 'Job Details' page along with a dialog box stating whether the changes were made successfully or not.

3.5.1.37 ActionResult RNAProjectMVCApp.Controllers.DiaryController.UpdateJobAllocationDetails (string *jobId*)

Displays the 'Update Job Allocation Details' page.

Parameters

<i>jobId</i>	The job id of the job allocation details you want to view.
--------------	--

Returns

The 'Update Job Allocation Details' page for the specified job.

3.5.1.38 ActionResult RNAProjectMVCApp.Controllers.DiaryController.UpdateJobAllocationDetails (JobAllocationModel *jobAllocationDetails*)

Attempts to updates the allocation details of a job.

Parameters

<i>jobAllocation-Details</i>	The job allocation details.
------------------------------	-----------------------------

Returns

The 'Job Details' page along with a dialog box stating whether the changes were made successfully or not.

3.6 RNAProjectMVCApp.Controllers.EquipmentAndServicesController Class Reference

This class provides the functionality for the equipment and services section of the application.

3.6.1 Member Function Documentation

3.6.1.1 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController._DeleteEvent (string *id*, string *plantItemId*)

Deletes a history event and gets all the history events for a given plant item to be displayed in a Telerik Grid.

Parameters

<i>id</i>	The id of the history event..
<i>plantItemId</i>	The plant item id.

Returns

A GridModel with all history events for the specified plant item.

3.6.1.2 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController._HistoryGrid (string *plantItemId*)

Gets all the history events for a given plant item to be displayed in a Telerik Grid.

Parameters

<i>plantItemId</i>	The plant item id.
--------------------	--------------------

Returns

A GridModel with all history events for the specified plant item.

3.6.1.3 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController._InsertEvent (PlantHistoryModel *newEvent*, string *plantItemId*)

Adds a history event and gets all the history events for a given plant item to be displayed in a Telerik Grid.

Parameters

<i>newEvent</i>	The new event.
<i>plantItemId</i>	The plant item id.

Returns

A GridModel with all history events for the specified plant item.

3.6.1.4 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController._UpdateEvent (PlantHistoryModel *updatedEvent*, string *plantItemId*)

Updates a history event and gets all the history events for a given plant item to be displayed in a Telerik Grid.

Parameters

<i>updatedEvent</i>	The updated event details.
<i>plantItemId</i>	The plant item id.

Returns

A GridModel with all history events for the specified plant item.

3.6.1.5 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController._VehicleTypes-Combo ()

Gets all of the vehicle/plant types in the system, to be used to fill a combo box.

Returns

A list of all the vehicle/plant types in the system formatted as JSON.

3.6.1.6 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.AddPlantItem (string *button*, PlantItemData *plantItem*, FormCollection *formdata*, string[] *Operators*)

Adds a plant item to the system.

Parameters

<i>button</i>	The name of the button that called the action.
<i>plantItem</i>	The new plant item details.
<i>formdata</i>	The formdata.
<i>Operators</i>	The operators assigned to the plant item.

Returns

3.6.1.7 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.AddPlantType (string *button*, string *plantType*, string *description*)

Adds a plant type to the system.

Parameters

<i>button</i>	The name of the button that called the action.
<i>plantType</i>	The name of the plant type.
<i>description</i>	The description of the plant type.

Returns

3.6.1.8 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.AddServiceType (string *button*, FormCollection *form*, ServiceTypeData *serviceTypeDetails*)

Adds a service type to the system.

Parameters

<i>button</i>	The name of the button that called the action.
<i>form</i>	The form data sent to the action.
<i>serviceType-Details</i>	The new service type details.

Returns

3.6.1.9 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.Index ()

Displays the index page.

Returns

The index page.

3.6.1.10 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.Plant ()

Displays the 'Plant' page.

Returns

The 'Plant' page.

3.6.1.11 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.PlantItemDetails (PlantItemData *plantItemDetails*)

Displays the 'Plant Item Details' page that shown the details of a plant item.

Parameters

<i>plantItemDetails</i>	The plant item details.
-------------------------	-------------------------

Returns

The 'Plant Item Details' page.

3.6.1.12 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.PlantItemHistory (string *plantItemId*, string *plantReg*)

Displays the 'Plant Item History' page.

Parameters

<i>plantItemId</i>	The plant item id.
<i>plantReg</i>	The plant registration.

Returns

The 'Plant Item History' page.

3.6.1.13 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.PlantItemsList ()

Displays a page that contains a list of all of the plant items in the system.

Returns

The 'Plant Items List' page which contains a list of all of the plant items in the system.

3.6.1.14 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.PlantTypeDetails (string *Description*, string *PlantType*, string *PlantTypeId*)

Displays the 'Plant Type Details' page that shown the details of a plant type.

Parameters

<i>Description</i>	A description of the plant type.
<i>PlantType</i>	The name of the plant type.
<i>PlantTypeId</i>	The plant type id.

Returns

The 'Plant Type Details' page.

3.6.1.15 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.PlantTypes ()

Displays the 'Plant Types' page.

Returns

The 'Plant Types' page.

3.6.1.16 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.PlantTypesList ()

Displays a page that contains a list of all of the plant types in the system.

Returns

The 'Plant Types List' page which contains a list of all of the plant types in the system.

3.6.1.17 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.RemovePlantItem (string *plantItemId*)

Removes a plant item from the system.

Parameters

<i>plantItemId</i>	The plant item id of the plant type to remove.
--------------------	--

Returns

If successful, the 'Plant Items List' page with the plant item removed; Otherwise the 'Plant Items List' page without the plant item removed.

3.6.1.18 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.RemovePlantType (string *plantTypeId*)

Removes a plant type from the system.

Parameters

<i>plantTypeId</i>	The plant type id of the plant type to remove.
--------------------	--

Returns

If successful, the 'Plant Types List' page with the plant type removed; Otherwise the 'Plant Types List' page without the plant type removed.

3.6.1.19 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.RemoveService-Type (string *serviceTypeId*)

Removes the service type from the system.

Parameters

<i>serviceTypeId</i>	The service type id of the service you want to remove.
----------------------	--

Returns

If successful, the 'Service Types List' page with the service type removed; Otherwise the 'Service Types List' page without the service type removed.

3.6.1.20 JsonResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.SendPlantListToPDAs ()

Sends the plant list to the PDAs/devices.

Returns

JSON which includes a message denoting whether it was possible to send the list to the PDAs or not.

3.6.1.21 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.Services ()

Displays the 'Services' page.

Returns

The 'Services' page.

3.6.1.22 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.ServiceTypeDetails (ServiceTypeData *serviceTypeDetails*)

Displays the 'Service Type Details' page that shown the details of a service type.

Parameters

<i>serviceType-Details</i>	The service type details.
----------------------------	---------------------------

Returns

The 'Service Type Details' page showing the details of the service type.

3.6.1.23 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.ServiceTypesList ()

Displays a page that contains a list of all of the service types in the system.

Returns

The 'Service Types List' page which contains a list of all of the service types in the system.

3.6.1.24 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.UpdatePlantItem (string *plantItemId*, FormCollection *formdata*, string[] *PlantItemOperators*)

Updates the details of a plant item.

Parameters

<i>plantItemId</i>	The plant item id of the plant item to update.
<i>formdata</i>	The formdata.
<i>PlantItem-Operators</i>	The operators assigned to the plant item.

Returns

The updated details of the plant item.

3.6.1.25 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.UpdatePlantType (string *Description*, string *PlantType*, string *PlantTypeId*)

Updates the details of a plant type.

Parameters

<i>Description</i>	The updated description of the plant type.
<i>PlantType</i>	The updated name of the plant type.
<i>PlantTypeId</i>	The plant type id.

Returns

The updated details of the plant type.

3.6.1.26 ActionResult RNAProjectMVCApp.Controllers.EquipmentAndServicesController.UpdateServiceType (ServiceTypeData *serviceTypeDetails*, FormCollection *form*)

Updates the details of a service type.

Parameters

<i>serviceType-Details</i>	The updated service type details.
<i>form</i>	The form data sent to the action.

Returns

3.7 RNAProjectMVCApp.Controllers.InTheFieldController Class Reference

This class provides the functionality for the 'In the Field' section of the application.

3.7.1 Member Function Documentation

3.7.1.1 ActionResult RNAProjectMVCApp.Controllers.InTheFieldController.AddDevice ()

Displays a page that allows the user to add a device to the system.

Returns

The 'Add Device' page.

3.7.1.2 ActionResult RNAProjectMVCApp.Controllers.InTheFieldController.AddDevice (DeviceModel *newDevice*)

Attempts to add the device to the system.

Parameters

<i>newDevice</i>	The new device details.
------------------	-------------------------

Returns

If the device is added successfully then it displays the 'Device Details' page; Otherwise it displays the 'Add Device' page with errors.

3.7.1.3 ActionResult RNAProjectMVCApp.Controllers.InTheFieldController.DeviceDetails (string *deviceId*)

Displays the details of a device.

Parameters

<i>deviceId</i>	The device id.
-----------------	----------------

Returns

The 'Device Details' page showing the details of the specified device.

3.7.1.4 ActionResult RNAProjectMVCApp.Controllers.InTheFieldController.Devices ()

Displays the devices page.

Returns

The devices page.

3.7.1.5 ActionResult RNAProjectMVCApp.Controllers.InTheFieldController.DevicesList ()

Displays a page that contains a list of all of the devices in the system.

Returns

The 'Devices List' page which contains a list of all of the devices in the system.

3.7.1.6 ActionResult RNAProjectMVCApp.Controllers.InTheFieldController.EditDeviceDetails (string *deviceId*)

Displays a page that allows a user to edit the details of a device.

Parameters

<i>deviceId</i>	The device id of the device you want to edit the details of.
-----------------	--

Returns

The 'Edit Device Details' page with the details of the specified device.

3.7.1.7 ActionResult RNAProjectMVCApp.Controllers.InTheFieldController.EditDeviceDetails (DeviceModel *deviceDetails*)

Attempts to edit the device details.

Parameters

<i>deviceDetails</i>	The updated device details.
----------------------	-----------------------------

Returns

If the device is edited successfully then it displays the 'Device Details' page; Otherwise it displays the 'Edit Device' page with errors.

3.7.1.8 ActionResult RNAProjectMVCApp.Controllers.InTheFieldController.Index ()

Displays the index page.

Returns

The index page.

3.7.1.9 ActionResult RNAProjectMVCApp.Controllers.InTheFieldController.RemoveDevice (string *deviceld*)

Removes a device from the system.

Parameters

<i>deviceld</i>	The device id of the device you want to remove.
-----------------	---

Returns

If successful, the 'Devices List' page with the device removed; Otherwise the 'Devices List' page without the device removed.

3.8 RNAProjectMVCApp.Controllers.InvoicingController Class Reference

This class provides the functionality for the invoicing section of the application.

3.8.1 Member Function Documentation

3.8.1.1 ActionResult RNAProjectMVCApp.Controllers.InvoicingController._FindInvoicesGrid ()

Gets all the invoices in the system to be displayed in a Telerik Grid.

Returns

A GridModel with all the invoices in the system.

3.8.1.2 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.DeletePayment (string *id*, string *invoiceld*)

Deletes a payment and gets all the payments for a given invoice to be displayed in a Telerik Grid..

Parameters

<i>id</i>	The id of the payment to delete.
<i>invoiceld</i>	The invoice id.

Returns

A GridModel with all payments for the specified invoice.

3.8.1.3 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.FindInvoice ()

Displays the 'Find Invoice' page which allows the user to search for an invoice based on the invoice id.

Returns

The 'Find Invoice' page.

3.8.1.4 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.FindJobsToInvoice ()

Displays the 'Find Jobs to Invoice' page. The page contains a list of all of the jobs that are ready to invoice.

Returns

The 'Find Jobs to Invoice' page.

3.8.1.5 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.FindJobsToInvoice (string[] *joblds*, string *button*)

Either marks the jobs as invoiced or creates a new invoice for the jobs.

Parameters

<i>joblds</i>	The job ids to mark as invoiced or to create an invoice for.
<i>button</i>	The name of the button that called the action.

Returns

The 'Find Jobs to Invoice' page if the button name is 'markAsInv'; Otherwise, the 'New Invoice' page if the jobs can be invoiced together.

3.8.1.6 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.Index ()

Displays the index page.

Returns

The index page.

3.8.1.7 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.InsertPayment (InvoicePaymentModel *newPayment*)

Adds a payment and gets all the payments for a given invoice to be displayed in a Telerik Grid.

Parameters

<i>newPayment</i>	The new payment.
-------------------	------------------

Returns

A GridModel with all payments related to the invoice contained within the new payment details.

3.8.1.8 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.InvoiceDetails (string *invoiceld*)

Displays the details of an invoice.

Parameters

<i>invoiceld</i>	The invoice id of the invoice you want to view the details of.
------------------	--

Returns

The 'Invoice Details' page.

3.8.1.9 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.InvoicePayments (string *invoiceld*)

Displays the 'Invoices Payments' page.

Parameters

<i>invoiceld</i>	The invoice id to view the payments of.
------------------	---

Returns

The 'Invoices Payments' page which shows all payments that have been made towards the specified invoice.

3.8.1.10 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.NewInvoice ()

Displays the new invoice page.

Returns

The 'New Invoice' page.

3.8.1.11 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.NewInvoice (NewInvoicePreviewModel *invoiceDetails*, double *net*)

Attempts to add the new invoice to the system.

Parameters

<i>invoiceDetails</i>	The new invoice details.
<i>net</i>	The net value of the invoice.

Returns

If the invoice is added successfully then it displays the 'Invoice Details' page; Otherwise it displays the 'New Invoice' page with errors.

3.8.1.12 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.PaymentsGrid (string *invoiceld*)

Gets all the payments for a given invoice to be displayed in a Telerik Grid.

Parameters

<i>invoiceld</i>	The invoice id.
------------------	-----------------

Returns

A GridModel with all payments for the specified invoice.

3.8.1.13 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.RegisterPayments ()

Displays the 'Register Payments' page.

Returns

The 'Register Payments' page.

3.8.1.14 ActionResult RNAProjectMVCApp.Controllers.InvoicingController.UpdatePayment (InvoicePaymentModel *updatedPayment*)

Updates a payment and gets all the payments for a given invoice to be displayed in a Telerik Grid.

Parameters

<i>updatedPayment</i>	The updated payment.
-----------------------	----------------------

Returns

A GridModel with all payments related to the invoice contained within the updated payment details.

3.9 RNAProjectMVCApp.Controllers.MappingController Class Reference

This class provides the functionality for the mapping section of the application.

3.9.1 Member Function Documentation

3.9.1.1 ActionResult RNAProjectMVCApp.Controllers.MappingController._AddressMappingGrid ()

Gets all the addresses in the system to be displayed in a Telerik Grid.

Returns

A GridModel with all the addresses in the system.

3.9.1.2 ActionResult RNAProjectMVCApp.Controllers.MappingController._JobGrid ()

Gets all the jobs that have been created to be displayed in a Telerik Grid.

Returns

A GridModel with all jobs that have been created.

3.9.1.3 ActionResult RNAProjectMVCApp.Controllers.MappingController.AddressLocations ()

Displays the 'Address Locations' page.

Returns

The 'Address Locations' page.

3.9.1.4 ActionResult RNAProjectMVCAApp.Controllers.MappingController.DisplayAddressLocationMap (string *latitude*, string *longitude*)

Displays the address location map.

Parameters

<i>latitude</i>	The latitude of the address coordinate.
<i>longitude</i>	The longitude of the address coordinate.

Returns

A map with the specified coordinates.

3.9.1.5 ActionResult RNAProjectMVCAApp.Controllers.MappingController.DisplayAllOperatorsCurrent (double *hours*)

Displays all operators current position. The position must have been recorded within a given number of hours.

Parameters

<i>hours</i>	The number of hours in which the GPS coordinates must have been recorded.
--------------	---

Returns

The 'Track Operators Map' with the current position of each operator.

3.9.1.6 ActionResult RNAProjectMVCAApp.Controllers.MappingController.DisplayAllOperatorsLastKnown ()

Displays all operators last known position.

Returns

The 'Track Operators Map' with the last known position of each operator.

3.9.1.7 ActionResult RNAProjectMVCAApp.Controllers.MappingController.DisplayAllPlantCurrent (double *hours*)

Displays all plant items current position. The position must have been recorded within a given number of hours.

Parameters

<i>hours</i>	The number of hours in which the GPS coordinates must have been recorded.
--------------	---

Returns

The 'Track Plant Map' with the current position of each plant item.

3.9.1.8 ActionResult RNAProjectMVCAApp.Controllers.MappingController.DisplayAllPlantLastKnown ()

Displays all plant items last known position.

Returns

The 'Track Plant Map' with the last known position of each plant item.

3.9.1.9 ActionResult RNAProjectMVCApp.Controllers.MappingController.DisplayJobRouteMap (string *jobId*)

Displays the job route map.

Parameters

<i>jobId</i>	The job id.
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Returns

Displays the 'Job Route Map' page.

Parameters

<i>jobId</i>	The job id.
--------------	-------------

Returns

The 'Display Job Route Map' with all coordinates recorded for the specified job.

3.9.1.10 ActionResult RNAProjectMVCApp.Controllers.MappingController.JobRoute ()

Displays the 'Job Route' page.

Returns

The 'Job Route' page.

3.9.1.11 ActionResult RNAProjectMVCApp.Controllers.MappingController.OperatorLogLocations ()

Displays the 'Operator Log Locations' page.

Returns

The 'Operator Log Locations' page.

3.9.1.12 ActionResult RNAProjectMVCApp.Controllers.MappingController.OperatorLogLocationsMap (OperatorLogRequestData *requestData*)

Operators the log locations map.

Parameters

<i>requestData</i>	The request data.
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Returns

Displays the 'Operator Log Locations Map' page.

Parameters

<i>requestData</i>	The request data.
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Returns

The 'Operator Log Locations Map' with the log locations that were specified.

3.9.1.13 ActionResult RNAProjectMVCApp.Controllers.MappingController.OperatorLogLocationsSideBar ()

Displays the side bar for the 'Operator Log Locations' page. This provides the different options for viewing operator logs.

Returns

The 'Operator Log Locations Side Bar' page.

3.9.1.14 ActionResult RNAProjectMVCApp.Controllers.MappingController.TrackOperators ()

Displays the 'Track Operators' page.

Returns

The 'Track Operators' page.

3.9.1.15 ActionResult RNAProjectMVCApp.Controllers.MappingController.TrackOperatorsMap (OperatorTrackingData data)

Displays the 'Track Operators Map'.

Parameters

<i>data</i>	The data to display on the map.
-------------	---------------------------------

Returns

The 'Track Operators Map' with the operator locations that were specified.

3.9.1.16 ActionResult RNAProjectMVCApp.Controllers.MappingController.TrackOperatorsSideBar ()

Displays the side bar for the track operators page. This provides the different options for tracking operators.

Returns

The 'Track Operators Side Bar' page.

3.9.1.17 ActionResult RNAProjectMVCApp.Controllers.MappingController.TrackPlant ()

Displays the 'Track Plant' page.

Returns

The 'Track Plant' page.

3.9.1.18 ActionResult RNAProjectMVCApp.Controllers.MappingController.TrackPlantMap (PlantTrackingData data)

Displays the 'Track Plant Map' page.

Parameters

<i>data</i>	The data to display on the map.
-------------	---------------------------------

Returns

The 'Track Plant Map' with the plant item locations that were specified.

3.9.1.19 ActionResult RNAProjectMVCApp.Controllers.MappingController.TrackPlantSideBar ()

Displays the side bar for the track plant page. This provides the different options for tracking plant items.

Returns

The 'Track Plant Side Bar' page.

3.10 RNAProjectMVCApp.Controllers.MessagingController Class Reference

This class provides the functionality for the messaging section of the application.

3.10.1 Member Function Documentation**3.10.1.1 ActionResult RNAProjectMVCApp.Controllers.MessagingController._InboxGrid ()**

Gets all the inbox messages to be displayed in a Telerik Grid.

Returns

A GridModel with all inbox messages for the office.

3.10.1.2 ActionResult RNAProjectMVCApp.Controllers.MessagingController._OutboxGrid ()

Gets all the outbox messages to be displayed in a Telerik Grid.

Returns

A GridModel with all outbox messages for the office.

3.10.1.3 ActionResult RNAProjectMVCApp.Controllers.MessagingController.DeleteInboxMessage (string *id*)

Deletes a message from the inbox.

Parameters

<i>id</i>	The id of the message to delete.
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Returns

the inbox page.

3.10.1.4 ActionResult RNAProjectMVCApp.Controllers.MessagingController.DeleteOutboxMessage (string *id*)

Deletes a message from the outbox.

Parameters

<i>id</i>	The id of the message to delete.
-----------	----------------------------------

Returns

The outbox page.

3.10.1.5 ActionResult RNAProjectMVCApp.Controllers.MessagingController.Inbox ()

Displays the inbox page which shows a list of messages sent from operatives in the field to the office.

Returns

The inbox page.

3.10.1.6 ActionResult RNAProjectMVCApp.Controllers.MessagingController.MessageContent (string *messageld*)

Displays the content of a message.

Parameters

<i>messageld</i>	The message id to view the content of.
------------------	--

Returns

The 'Message Content' page, which shows the content of the message specified.

3.10.1.7 ActionResult RNAProjectMVCApp.Controllers.MessagingController.NewMessage ()

Displays the 'New Message' page which allows the user to create a message and send it to operatives.

Returns

The 'New Message' page.

3.10.1.8 ActionResult RNAProjectMVCApp.Controllers.MessagingController.NewMessage (NewMessageModel *newMessage*)

Attempts to create a new message and send it to the specified operatives.

Parameters

<i>newMessage</i>	The new message to send.
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Returns

If the message is sent successfully then the 'Send Message Success' page is displayed; Otherwise the 'New Message' page is displayed with errors.

3.10.1.9 ActionResult RNAProjectMVCApp.Controllers.MessagingController.Outbox ()

Displays the outbox page which shows a list of messages sent from the office to operatives in the field.

Returns

The outbox page.

3.10.1.10 ActionResult RNAProjectMVCApp.Controllers.MessagingController.SendMessageSuccess ()

Displays the 'Send Message Success' page.

Returns

The 'Send Message Success' page.

3.11 RNAProjectMVCApp.Controllers.OtherController Class Reference

This class provides the functionality for the section of the application titled 'Other'.

3.11.1 Member Function Documentation

3.11.1.1 ActionResult RNAProjectMVCApp.Controllers.OtherController._JobsReqSigGrid ()

Gets all the jobs that require a signature, to be displayed in a Telerik Grid.

Returns

A GridModel with all the jobs that require a signature.

3.11.1.2 ActionResult RNAProjectMVCApp.Controllers.OtherController.Index ()

Displays the index page. This shows all jobs that require signatures and provide options with dealing with them. It is possible to mark them as not requiring a signature or you can send the jobs to an operator so they can collect a signature for the jobs.

Returns

The index page.

3.11.1.3 ActionResult RNAProjectMVCApp.Controllers.OtherController.Index (string[] *jobIds*, string *operatorToSendJobsTo*, string *button*)

Attempts to either mark the jobs as not requiring a signature or sends the jobs to an operator so they can collect a signature for the jobs.

Parameters

<i>jobIds</i>	The job ids.
<i>operatorToSendJobsTo</i>	The operator to send jobs to.
<i>button</i>	The name of the button that called the action.

Returns

The index page, which shows the state of all the jobs requiring signatures after calling this method.

3.12 RNAProjectMVCApp.Controllers.SettingsController Class Reference

This class provides the functionality for the settings section of the application.

3.12.1 Member Function Documentation

3.12.1.1 ActionResult RNAProjectMVCApp.Controllers.SettingsController.CompanyDetailsSettings ()

Displays the 'Company Details Settings' page which shows the company details being used by the application.

Returns

The 'Company Details Settings' page.

3.12.1.2 ActionResult RNAProjectMVCApp.Controllers.SettingsController.CompanyDetailsSettings (CompanyDetailsSettingsModel *companyDetails*)

Attempts to update the company details being used.

Parameters

<i>companyDetails</i>	The updated company details.
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Returns

The 'Company Details Settings' page.

3.12.1.3 ActionResult RNAProjectMVCApp.Controllers.SettingsController.HintsAndWarningsSettings ()

Displays the 'Hints and Warnings Settings' page. This allows the user to run a warning check on all plant items.

Returns

The 'Hints and Warnings Settings' page.

3.12.1.4 ActionResult RNAProjectMVCApp.Controllers.SettingsController.HintsAndWarningsSettings (HintsAndWarningsSettingsModel *hintsAndWarningsModel*)

Attempts to update the hints and warnings settings being used to run the warning check.

Parameters

<i>hintsAndWarningsModel</i>	The updated hints and warnings settings.
------------------------------	--

Returns

The 'Hints and Warnings Settings' page.

3.12.1.5 ActionResult RNAProjectMVCApp.Controllers.SettingsController.JobSettings ()

Displays the 'Job Settings' page which shows the job settings being used by the application. This includes maximum and minimum job times and the weekend and evening boundary times.

Returns

The 'Job Settings' page.

3.12.1.6 ActionResult RNAProjectMVCApp.Controllers.SettingsController.JobSettings (JobSettingsModel *jobSettings*)

Attempts to update the job settings being used.

Parameters

<i>jobSettings</i>	The updated job settings.
--------------------	---------------------------

Returns

The 'Job Settings' page.

3.12.1.7 ActionResult RNAProjectMVCApp.Controllers.SettingsController.RunWarningCheck (bool *nextMot*, bool *roadTax*, bool *nextService*, bool *nextCheck*, int *numberOfWeeks*)

Runs a warning check over all plant items that have a maintenance schedule.

Parameters

<i>nextMot</i>	if set to <code>true</code> the next mot date is checked.
<i>roadTax</i>	if set to <code>true</code> the road tax date is checked.
<i>nextService</i>	if set to <code>true</code> the next service date is checked.
<i>nextCheck</i>	if set to <code>true</code> the next check date is checked.
<i>numberOfWeeks</i>	The number of weeks the maintenance date must fall within.

Returns

A list of plant items that require some form of maintenance, out of the ones specified, within the given number of weeks.

3.13 RNAProjectMVCApp.Controllers.WorkforceController Class Reference

This class provides the functionality for the workforce section of the application.

3.13.1 Member Function Documentation

3.13.1.1 ActionResult RNAProjectMVCApp.Controllers.WorkforceController._AbsenceGrid (string *operatorId*)

Ggets all the absences for an operator to be displayed in a Telerik Grid.

Parameters

<i>operatorId</i>	The operator id of the operator you wish to retrieve the absence data for.
-------------------	--

Returns

A GridModel with all absences for the specified operator.

3.13.1.2 ActionResult RNAProjectMVCApp.Controllers.WorkforceController._AddNewAbsence ()

Adds a new absence for an operator and gets all the absences for an operator to be displayed in a Telerik Grid.

Returns

A GridModel with all absences for the operator related to the absence being added.

3.13.1.3 ActionResult RNAProjectMVCApp.Controllers.WorkforceController._DeleteAbsence (string *id*, string *operatorId*)

Deletes an absence and gets all the absences for the specified operator, to be displayed in a Telerik Grid.

Parameters

<i>id</i>	The id of the absence to delete.
<i>operatorId</i>	The operator id to get the absence data for.

Returns

A GridModel with all absences for the specified operator.

3.13.1.4 ActionResult RNAProjectMVCApp.Controllers.WorkforceController._UpdateAbsence (string *id*)

Updates an absence and gets all the absences for an operator to be displayed in a Telerik Grid.

Parameters

<i>id</i>	The id of the absence to update.
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Returns

A GridModel with all absences for the operator related to the absence being added.

3.13.1.5 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.AddNewUser ()

Displays the 'Add New User' page which allows the user to add a new user to the system.

Returns

The 'Add New User' page.

3.13.1.6 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.AddNewUser (NewUserAndAddressModel *newUserDetails*, string *button*)

Attempts to add a new user to the system.

Parameters

<i>newUserDetails</i>	The new user details.
<i>button</i>	The name of the button that called the action.

Returns

The 'Add New User' page if the user is added successfully to allow another user to be created; Otherwise, the 'Add New User' page is displayed with errors.

3.13.1.7 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.AddOperator ()

Displays the 'Add Operator' page which allows an operator to be added to the system.

Returns

The 'Add Operator' page.

3.13.1.8 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.AddOperator (NewOperatorModelDetails *newOperator*)

Attempts to add a new operator to the system.

Parameters

<i>newOperator</i>	The details of the new operator.
--------------------	----------------------------------

Returns

If successful, the 'Operator Details' page is displayed; Otherwise the 'Add Operator' page is displayed with errors.

3.13.1.9 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.AddressGrid ()

Displays a grid which is filled with all the addresses in the system.

Returns

A grid which is filled with all the addresses in the system.

3.13.1.10 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.AddSubcontractor ()

Displays the 'Add Subcontractor' page which allows a subcontractor to be added to the system.

Returns

The 'Add Subcontractor' page.

3.13.1.11 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.AddSubcontractor (CompleteSubcontractorModel newSubcontractor, string[] subSkills)

Attempts to add a new subcontractor to the system.

Parameters

<i>new-Subcontractor</i>	The new subcontractor.
<i>subSkills</i>	The subcontractor skills.

Returns

If successful, the 'Subcontractor Details' page is displayed; Otherwise the 'Add Subcontractor' page is displayed with errors.

3.13.1.12 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.ChangeOperatorPassword (string operatorId)

Displays the 'Change Operator Password' page which allows the user to change a password for an operator.

Parameters

<i>operatorId</i>	The operator id of the operator you wish to change the password of.
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Returns

The 'Change Operator Password' page.

3.13.1.13 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.ChangeOperatorPassword (ChangePasswordModel model)

Attempts to change the password for an operator.

Parameters

<i>model</i>	The details required to change a password (operator id, new password, old password).
--------------	--

Returns

If successful, the 'Change Password Success' page is displayed; Otherwise the 'Change Operator Password' page is displayed with errors.

3.13.1.14 `ActionResult RNAProjectMVCApp.Controllers.WorkforceController.ChangeOperatorStatus (string operatorId, int employmentStatusId, string operatorName)`

Displays the 'Change Operator Status' page which allows the user to change the employment status for an operator.

Parameters

<i>operatorId</i>	The operator id of the operator you wish to change the status of.
<i>employment-StatusId</i>	The employment status id.
<i>operatorName</i>	The name of the operator.

Returns

The 'Change Operator Status' page.

3.13.1.15 `ActionResult RNAProjectMVCApp.Controllers.WorkforceController.ChangePasswordSuccess ()`

Displays the 'Change Password Success' page.

Returns

The 'Change Password Success' page.

3.13.1.16 `ActionResult RNAProjectMVCApp.Controllers.WorkforceController.ChangeUserPassword (string userId)`

Displays the 'Change User Password' page which allows the user to change a password for a user.

Parameters

<i>userId</i>	The user id of the user you wish to change the password of.
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Returns

The 'Change User Password' page.

3.13.1.17 `ActionResult RNAProjectMVCApp.Controllers.WorkforceController.ChangeUserPassword (ChangePasswordModel model)`

Attempts to change password for a user.

Parameters

<i>model</i>	The details required to change a password (user id, new password, old password).
--------------	--

Returns

If successful, the 'Change Password Success' page is displayed; Otherwise the 'Change User Password' page is displayed with errors.

3.13.1.18 `ActionResult RNAProjectMVCApp.Controllers.WorkforceController.EditOperator (string operatorId)`

Displays a page that allows the user to edit the details of an operator.

Parameters

<i>operatorId</i>	The operator id of the operator you want to edit the details of.
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Returns

The 'Edit Operator' page.

3.13.1.19 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.EditOperator (OperatorModelDetails updatedOperator)

Attempts to edit the details of an operator.

Parameters

<i>updatedOperator</i>	The updated operator details.
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Returns

If successful, the 'Operator Details' page is displayed; Otherwise the 'Edit Operator' page is displayed with errors.

3.13.1.20 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.EditSubcontractor (string subcontractorId)

Displays a page that allows the user to edit the details of a subcontractor.

Parameters

<i>subcontractorId</i>	The subcontractor id.
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Returns

The 'Edit Subcontractor' page.

3.13.1.21 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.EditSubcontractor (CompleteSubcontractorModel subcontractor, string[] subSkills)

Attempts to edit the details of a subcontractor.

Parameters

<i>subcontractor</i>	The updated subcontractor details.
<i>subSkills</i>	The subcontractor skills.

Returns

If successful, the 'Subcontractor Details' page is displayed; Otherwise the 'Edit Subcontractor' page is displayed with errors.

3.13.1.22 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.OperatorDetails (string operatorId)

Displays the details of a specific operator.

Parameters

<i>operatorId</i>	The operator id of the operator you want to view the details of.
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Returns

The 'Operator Details' page, showing the details of the operator specified.

3.13.1.23 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.Operators ()

Displays the operators page.

Returns

The operators page.

3.13.1.24 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.OperatorsList ()

Displays a page that contains a list of all of the operators in the system.

Returns

The 'Operators List' page which contains a list of all of the operators in the system.

3.13.1.25 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.RemoveOperator (string operatorId)

Removes an operator.

Parameters

<i>subcontractorId</i>	The operator id of the operator to remove.
------------------------	--

Returns

If successful, the 'Operators List' page with the operator removed; Otherwise the 'Operators List' page without the operator removed.

3.13.1.26 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.RemoveSubcontractor (string subcontractorId)

Removes a subcontractor.

Parameters

<i>subcontractorId</i>	The subcontractor id of the subcontractor to remove.
------------------------	--

Returns

If successful, the 'Subcontractors List' page with the subcontractor removed; Otherwise the 'Subcontractors List' page without the subcontractor removed.

3.13.1.27 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.RemoveUser (string *userId*)

Removes a user.

Parameters

<i>userId</i>	The user id of the user to remove.
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Returns

If successful, the 'Users List' page with the user removed; Otherwise the 'Users List' page without the user removed.

3.13.1.28 JsonResult RNAProjectMVCApp.Controllers.WorkforceController.SendOperatorListToPDAs ()

Sends the operator list to the PDAs/devices.

Returns

JSON which includes a message denoting whether it was possible to send the list to the PDAs or not.

3.13.1.29 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.SubcontractorDetails (string *subcontractorId*)

Displays the details of a specific subcontractor.

Parameters

<i>subcontractorId</i>	The subcontractor id of the subcontractor you want to view the details of.
------------------------	--

Returns

The 'Subcontractor Details' page, showing the details of the subcontractor specified.

3.13.1.30 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.Subcontractors ()

Displays the subcontractors page.

Returns

The subcontractors page.

3.13.1.31 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.SubcontractorsList ()

Displays a page that contains a list of all of the subcontractors in the system.

Returns

The 'Subcontractors List' page which contains a list of all of the subcontractors in the system.

3.13.1.32 void RNAProjectMVCApp.Controllers.WorkforceController.UpdateEmploymentStatus (string *employmentStatus*, string *operatorId*)

Attempts to updates the employment status of an operator.

Parameters

<i>employment-Status</i>	The employment status you wish to give the operator.
<i>operatorId</i>	The operator id of the operator you want to update the employment status of.

3.13.1.33 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.UserDetails (string *userId*)

Displays the details for a user.

Parameters

<i>userId</i>	The user id of the user you want to view the details of.
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Returns

The 'User Details' page showing the details of the specified user.

3.13.1.34 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.UserDetails (UserAndAddressModel *updatedUserDetails*)

Attempts to update the details of a user.

Parameters

<i>updatedUser-Details</i>	The updated user details.
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Returns

The 'User Details' page with the updated details.

3.13.1.35 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.Users ()

Displays the users page.

Returns

The users page.

3.13.1.36 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.UsersList ()

Displays a page that contains a list of all of the users in the system.

Returns

The 'Users List' page which contains a list of all of the users in the system.

3.13.1.37 ActionResult RNAProjectMVCApp.Controllers.WorkforceController.Workforce ()

Displays the workforce page.

Returns

The workforce page.

3.14 RNAProjectMVCApp.CommonCode.AddressFunctions Class Reference

This class provides the functionality to convert address objects. To and from 'Address Data' objects and 'Address Model' objects.

3.14.1 Member Function Documentation

3.14.1.1 static AddressModel RNAProjectMVCApp.CommonCode.AddressFunctions.ConvertAddressDataToModel (AddressData addressdata) [static]

Converts an 'Address Data' object to an 'Address Model' object.

Parameters

<i>addressdata</i>	The address data to convert.
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Returns

The address data which has been converted to an address model object.

3.14.1.2 static AddressData RNAProjectMVCApp.CommonCode.AddressFunctions.ConvertAddressModelToAddressData (AddressModel addressModel) [static]

Converts an 'Address Model' object to an 'Address Data' object.

Parameters

<i>addressModel</i>	The address model to convert.
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Returns

The address model which has been converted to an address data object.

3.15 RNAProjectMVCApp.CommonCode.RegularExpressions Class Reference

This class provides constants which are being used throughout the application to validate user input data.

Public Attributes

- const string **EmailPattern** = "[A-Za-z0-9._%+~]+@[A-Za-z0-9.-]+\.[a-zA-Z]{2,4}"
- const string **EmailErrorMessage** = "Invalid email address."
- const string **PhoneNumberPattern** = "(\d+)?"
- const string **PhoneNumberErrorMessage** = "Phone number can only contain digits and single spaces."
- const string **MobileNumberPattern** = "(\d+)?"
- const string **MobileNumberErrorMessage** = "Mobile number can only contain digits and single spaces."
- const string **FaxNumberPattern** = "(\d+)?"
- const string **FaxNumberErrorMessage** = "Fax number can only contain digits and single spaces."

3.16 RNAProjectMVCApp.CommonCode.SiteFunctions Class Reference

This class provides the functionality to convert site data objects to site model objects.

3.16.1 Member Function Documentation

3.16.1.1 static SiteModel RNAProjectMVCApp.CommonCode.SiteFunctions.ConvertSiteDataToModel (SiteData siteData) [static]

Converts a 'Site Data' object to a 'Site Model' object.

Parameters

<i>siteData</i>	The site data to convert.
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Returns

The site data which has been converted to a site model object.

3.17 RNAProjectMVCApp.Membership.AccountMembershipProvider Class Reference

This class is a custom membership provider for the application. Currently only one of the membership functions is being overridden. That is the ValidateUser method which allows users to validated to gain access to the application functionality.

3.17.1 Member Function Documentation

3.17.1.1 override bool RNAProjectMVCApp.Membership.AccountMembershipProvider.ValidateUser (string username, string password)

Verifies that the specified user name and password exist in the data source.

Parameters

<i>username</i>	The name of the user to validate.
<i>password</i>	The password for the specified user.

Returns

true if the specified username and password are valid; otherwise, false.

3.18 RNAProjectMVCApp.Membership.AccountRoleProvider Class Reference

This class is a custom role provider for the application. Currently only one of the role functions is being overridden. That is the GetRolesForUser method which allows the users rights level to be retrieved.

3.18.1 Member Function Documentation

3.18.1.1 override string [] RNAProjectMVCApp.Membership.AccountRoleProvider.GetRolesForUser (string username)

Gets a list of the roles that a specified user is in for the configured applicationName.

Parameters

<i>username</i>	The user to return a list of roles for.
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Returns

A string array containing the names of all the roles that the specified user is in for the configured application-Name.
