Developing with CaseMap Server

User Guide

CaseMap® Server v1.6

- **Getting Started with CaseMap Development**
- **CaseMap Server Programming Reference**

Developing with CaseMap Server

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Developing with CaseMap Server

Getting Started with CaseMap Server Development

About CaseMap Server Development

The CaseMap Server programming environment consists of six REST methods exposed using the Windows Communication Foundation (WCF). The methods allow a client application to access basic data retrieval capabilities, such as the ability to view CaseMap spreadsheet data and get a list of users in a case.

The following topics describe how to get started with CaseMap Server development:

Topic	Description
What you need to know	What you likely need to know before reading any further into the documentation.
About the CaseMap Server programming documention	A summary of the main sections of the programming documentation, and what order they should be read in.
About the CaseMap Server API	Summaries the way the CaseMap Server API is organized.
About authentication	Overview of the authentication security features built into the CaseMap Server REST API.
Tutorial: What's the version, CaseMap?	Shows two different ways to retrieve information from CaseMap Server: either directly through a browser, or programmatically.

What you need to know

In order to successfully develop an application using the CaseMap Server API, you must have knowledge in two areas: CaseMap Server itself, WCF. You may also find it useful to be familiar with C#.

- **CaseMap**

  Currently, the CaseMap REST API allows you to retrieve CaseMap spreadsheet data. Therefore, you should have a basic understanding of how to use and administer CaseMap itself before you attempt to write an application that uses these features.

- **Windows Communication Foundation (WCF)**

  WCF is a Microsoft technology that allows an application to expose a programming interface on a network. CaseMap Server uses WCF to expose the entire API. Therefore, you should have a basic understanding of WCF features, such as endpoints and how to make a basic client call. Knowledge of advanced WCF features may be useful, but is not necessary to interact with the API. For more information, see Microsoft's WCF documentation.

Note that the CaseMap Server development documentation is written using C#. This includes all the code samples and procedural steps. However, you are not required to program in this language: WCF allows you to make calls to exposed resources in a variety of languages. However, it will likely be easier for you to understand the documentation if you are familiar with C#.

About the CaseMap Server programming documention

The documentation is divided up into two sections:

- Getting Started

  A quick summary of the documentation (including this topic), as well as links to other parts of the documentation. If you have never written an application for CaseMap Server, you should start here.

- Programming Reference

  Includes topics on URI structure, REST verbs, as well as a discussion of request and response headers. The REST API reference contains six methods, mostly addressing how to download and view spreadsheet data. Once you have read through the Getting Started sections, you should be able to understand any page in the reference. Note that although you can write an application that interacts with CaseMap Server in a variety of scripting languages, the reference is written in C#.

About the CaseMap Server API

The current version of the CaseMap Server API uses WCF to expose two services: CMServerAD, and CMServerLA. These two services allow you to retrieve the various cases, users, views, and spreadsheet data currently available on the server. The two services differ only in their authentication protocol.

- **CMServerAD** - Exposes a REST endpoint that is authenticated using Active Directory.
- **CMServerLA** - Exposes a REST endpoint that uses Local Authentication.

Before you use these services however, you must confirm that you have the appropriate permissions to access the server. For more information, see About the CaseMap Server programming documention.

About authentication

You can use either Active Directory or Local Authentication protocols to access CaseMap Server REST endpoints. CaseMap Server exposes these protocols through the CaseMapAD and CaseMapLA services.

Regardless of which service you choose to use, the information you retrieve will be the same. Also, CaseMap server does not use sessions; instead, your call is authenticated each time you make a call.

Active Directory

To use Active Directory authentication, make all your calls to the `/CaseMapAD/CMServerAD/` resource. Note that your user account must have Active Directory permissions on the server. If you have the appropriate permissions, the server will automatically authenticate you.

Example: `http://localhost/CaseMapAD/CMServerAD/version`

Local Authentication

To use Local Authentication, make all your calls to the `/CaseMapLA/CMServerLA/` resource. When using Local Authentication, the operating system will query you for the name and password of a local admin account.

Example: `http://localhost/CaseMapLA/CMServerLA/version`

Tutorial: What's the version, CaseMap?

CaseMap Server currently expsoses the CMServerAD service. This service exposes CaseMap Server version, case, fact, and issue information using a series of REST-based resources. You can query the service using either your browser, or programmatically. The following tutorials show how to retrieve the CaseMap Server version numbers using both paths.

To retrieve the version number of CaseMap Server using a browser

Paste the following URL into your browser address window, replacing "localhost" with the location of your CaseMap server, and press Enter.

http://localhost/CaseMapAD/CMServerAD.svc/version/

To retrieve the version number of CaseMap Server programmatically

1. In Visual Studio, add the following using statements to your code:

```
using System.IO;
using System.Net;
using System.Web;
using System.Xml;
using System.Xml.XPath;
```

2. Create the end point that describes the version resource.

```
string serverResource = "http://localhost";
string resourceName = "/CaseMapAD/CMServerAD.svc/version";
string endPoint = serverResource + resourceName;
```

If necessary, replace "localhost" with the URL of your CaseMap Server installation.

Note that this code samples uses the Active Directory authentication (`CaseMapAD`). You could optionally use local authentication, by calling /CaseMapLA/CMServerLA.svc instead. Both services provide the same data: the difference is simply which authentication protocol is used. For more information, see About authentication.

3. Create the call to the server.

```
 HttpWebRequest request = WebRequest.Create(endPoint) as
HttpWebRequest;

 request.Method = "GET";
```

4. send the response and display the returned content.

```
HttpWebResponse response = request.GetResponse() as HttpWebResponse;
DisplayMessage(response);
Console.ReadLine();
```

DisplayMessage is a helper function you can use to display REST mesponses to the console. For more information, see CaseMap Server Helper Methods.

5. Close down the connection.

```
 response.Close();
```

CaseMap Server Programming Reference

The following topics contain reference information on CaseMap Server.

Topic	Description
About URI Structure	The structure of the URI's used in a call to CaseMap Server.
About verbs	The four verbs (GET, SET, PUT, DELETE) used by CaseMap Server.
About request headers	The request headers a client application can send to CaseMap Server.
About response headers	The response headers sent by CaseMap Server.
CaseMap REST API	The API reference for CaseMap Server.

About URI Structure

The CaseMap Server API is structured around making REST calls to resources stored on a server. The location of CaseMap Server resources are declared using a URI, which adheres to the following pattern:

Resource Content:

```
<ServerResource>/[<service>/[<type>/[<resource ID>]]][?<query>][#<fragment>]
```

The following table describes the elements of a CaseMap Server URI:

Element	Description
/ (Root)	Lists available services; the root also contains the properties of the service host. **Example:** `http://localhost/CaseMapAD/`
<service>	Uniquely identifies a service on a service host. **Example:** `http://localhost/CaseMapAD/CMServerAD.svc/`
<type>	Uniquely identifies the target resource type within a service. **Example:** `http://localhost/CaseMapAD/CMServerAD.svc/cases/`
<resourceID>	The GUID of the resource. **Example:** `http://localhost/CaseMapAD/CMServerAD.svc/cases/case-6/data`
? <query>	Optional constraint used to filter or narrow the selection of a resource or a collection of resources. **Example:** `http://localhost/CaseMapAD/CMServerAD.svc/cases/case-6/data/facts/?recordCount=5&startingRecordNumber=5`

/ (Root)

Description

Lists the services provided by the service host.

Syntax

```
<serverResource>
```

Remarks

When accessed via a browser (and with the appropriate permissions), CaseMap Server returns the root folder of the website, which contains the following list of supported services, the licence, readme, and the Web.config file.

Service	Description
CMServerAD.svc	Active directory REST endpoint for CaseMap Server. CMServerAD and CMServerLA both support the REST calls described in this guide. For more information, see About authentication.
CMServerAdmin.svc	SOAP endpoint for the the CaseMap Server Administration console. For more information, see Accessing the CaseMap Admin Console.
CMServerClient.svc	SOAP endpoint for CaseMap Server client applications, such as CaseMap.
CMServerLA.svc	Local authentication REST endpoint for CaseMap Server. CMServerLA and CMServerAD both support the REST calls described in this guide. For more information, see About authentication.

Examples

The following example requests a list of provided services from the specified server.

```
GET http://localhost/CaseMapAD/
```

<service>

Description

Currently not supported.

Syntax

```
<ServerResource>/<service>
```

Remarks

Some REST-based services support calling the service directly; in doing so they can return information about the service, such as the names and location of various resources. However, CaseMap Server does not currently support directly calling the CMServerAD or CMServerLA services themselves. However, the service does support a number of endpoints, such as `CMServerAD.svc/version` or `CMServerLA.svc/cases`.

Supported Methods

This level of the URI is not directly supported by any method.

Examples

If CaseMap Server did support a method at this level, the call would likely appear as the following:

```
GET http://localhost/CaseMapAD/CMServerAD.svc/
```

<type>

Description

Describes one of the objects available as a location under a service.

Syntax

```
<ServerResource>/<service>/<type>
```

Remarks

Types roughly correspond to objects in database or object-oriented programming. for example, a case, view, or fact is considered a type.

A caller must be authenticated to make a successful GET request on a type. If the caller is authenticated, the list of resources returned to the caller will include only the resources the caller is permitted to access. If the caller is not authenticated, only the list of resources available to anonymous callers will be returned; if the caller must be authenticated, the relevant status code will be returned.

For CaseMap Server, authentication is provided by either local authentication (through CMServerLA.svc), or else through Active Directory (through CMServerAD.svc).

Supported Methods

The following table describes the types currently available for each service.

Service	Available Type
CMServerAD or CMServerLA	Version Info
	Cases
	Views
	Users
	Data
	{Spreadsheet-Name}
	Issues-Outline

Examples

The following example returns a list of all of the resources of the <cases> type, as described in GET get-cases.

```
GET http://localhost/CaseMapAD/CMServerAD.svc/cases/
```

<resourceID>

Description

Uniquely identifies a resource within a service. The <resource ID> contains all the information that is needed by the service to discover the resource type and scoping, as well as the resource itself.

Syntax

```
<ServerResource>/[<service>/[<type>/[<resource ID>]]]
```

Remarks

The <resource ID> has the following structure:

```
{<type name>-<instance identifier>}
```

- The `<type name>` is the singular form of the resource type that is not qualified by the service name. For example, if the resource type is specified by "/CMServerAD/cases", the <type name> is "case".
- The `<instance identifier>` is the unique identifier of the resource within the resource scoping. The <instance identifier> is in general a UUID, but may be something else (such as a friendly name or integer) in the case of legacy data.

Supported Methods and Examples

The following sections describe the <resource ID> naming convention for each type, as well as associated examples for each.

Universal Identifier (Uid)	Description
caseID	Identifies a case. **Syntax:** case-{integer} **Comments:** CaseMap assigns each case a unique number upon creation. The integer is an increase from the previous created case. You can retrieve the caseID from GET get-cases. **Example:** http://localhost/CaseMapAD/CMServerAD.svc/cases/case-6/views/?userId=3
userID	Identifies a user. **Syntax:** userId-{integer}

Universal Identifier (Uid)	Description
	Comments: CaseMap assigns each user a unique number upon creation. The integer is an increase from the previous created user. You can retrieve the userID values with GET get-case-users. **Example:** http://localhost/CaseMapAD/CMServerAD.svc/cases/case-6/views/?userId=3

? <query>

Description

An option that constrains or filters to narrow the selection of a resource or a collection of resources.

Syntax

```
<ServerResource>/[<service>/[<type>/[<resource ID>]]][?<query>]
```

Remarks

When applied to content, the <query> may specify constraints such as a search pattern or another selection criterion.

In addition to directly constraining the content or properties, the <query> may be used to constrain or filter factors that are external to the URI but are used by the method. For example, the <query> may constrain the effect of the method to a specific authenticated caller or callers. A <query> may be thought of as extra "parameters" to the method being invoked using the URI.

The query component contains non-hierarchical data that, along with data in the path component, serves to identify a resource within the scope of the URI's scheme and naming authority (if any). The query component is indicated by the first question mark ("?") character and terminated by a number sign ("#") character or by the end of the URI.

The characters slash ("/") and question mark ("?") may represent data within the query component.

For an example of a query syntax, see the Parameters section on the following API reference pages, as listed in the Supported Methods section, below.

Supported Methods

The following table describes the methods that use queries in CaseMap Server.

Service	Available Type
CMServerAD CMServerLA	GET get-case-views GET get-case-facts GET get-case-issues

Examples

Request Example

The following request retrieves a query result from case-6, as described in the example section of GET get-case-facts.

```
GET http://localhost/CaseMapAD/CMServerAD/cases/case-6/data/facts/?recordCou
```

About request headers

A Request header is a header contained in a request message that a client application sends to a server. These messages contain useful and necessary information about the request. For example, the most common request header you will use in CaseMap Server is the Accept header, which contains a number of parameters for many of the method calls. Other than <Accept>, all other request headers are either optional, auto-generated, or have a default value that is useable by most applications.

The following topics describe the headers you may need to place in a CaseMap Server request.

Header	Required	Description
Accept	No	Restricts what data the client will accept in the response. Used by GET get-case-facts and GET get-case-issues to limit the data returned.
Content-Length	Yes (autogenerated)	The length of content provided by PUT and POST verbs.
Host	Yes (autogenerated)	The host server. Used for logging.
user-agent	Yes	The user agent. Used for logging.

	(autogenerated)	

About response headers

The following topics discuss the common headers you may find in a response message from CaseMap Server. Currently, all the headers are merely informational, as the current CaseMap Server returns the requested information in the body of the message, rather than in any header.

Header	Description
`Cache-Control`	The cache control options. For CaseMap Server, this usually indicates that all or part of the response message is intended for a single user and must not be cached by a shared cache. **Example:** `Cache-Control: private`
`Connection`	Options for the connection. For CaseMap Server, this indicates that the connection is not persistent, and that you must request a new connection with each request. **Example:** `Connection: closed`
`Content-Type`	The content MIME type; usually application/xml. **Example:** `Content-Type: application/xml`
`Content-Length`	The length of the body of the message. Always returned. **Example:** `Content-Length: 253`
`Date`	The date of the creation of the message. **Example:** `Date: Mon, 27 Jun 2011 20:32:28 GMT`
`Server`	The Server type and version the message came from. **Example:** `Server: Microsoft-IIS/7.5`
`X-Asp-Net-Version`	The version of ASP.NET used by CaseMap Server. **Example:** `X-Asp-Net-Version: 2.0.502727`

CaseMap REST API

The following topics describe the API exposed by CaseMap Server.

Name	Description
CMServerAD and CMServer Service Reference	Resources for retrieving CaseMap spreadsheet data, including views, data, users, facts, and issues.
CaseMap Server Helper Methods	A series of helper methods used in the code samples to display message information.

CMServerAD and CMServer Service Reference

This topic contains API reference material for the CMServerAD and CMServerLA services. Both services return identical data; the difference is which authentication protocol the server uses. For more information, see About authentication.

Name	Description
GET get-version-info	Retrieves the version information of the web layer assembly.
GET get-cases	Retrieves a list of registered cases on the server.
GET get-case-views	Retrieves a collection of of views associated with the specified case.
GET get-case_data	Retrieves a collection of of spreadsheets for the specified case.
GET get-case-users	Retrieves a collection of of users assigned to a specified case
GET get-case-facts	Retrieves a list of facts for the specified spreadsheet.
GET get-case-issues	Retrieves a list of issues for the specified case.

GET get-version-info

Description

Retrieves the version information of the web layer assembly.

To use this action, send a GET request to the /version resource.

In response to a get-version-info request, CaseMap Server returns a <version> element that contains the major, minor, and build version numbers.

Requests

Syntax

```
GET {ServerNameHere}/CaseMapAD/CMServerAD/version

or

GET {ServerNameHere}/CaseMapLA/CMServerLA/version
```

Headers

The request includes the GET, User-Agent, and Host headers, which are standard for all CaseMap Server requests. For more information, see About request headers.

Parameters

The URL does not contain any parameters.

Content

The request does not contain any elements in the body.

Responses

Headers

The response includes the headers common to all CaseMap Server responses. For more

information, see About response headers.

Content

Name	Description
version	Parent element for the response. **Type:** complex **Children:** major, minor, build
major	Major version number. **Type:** int **Parent:** version **Example:** 1
minor	Minor version number **Type:** int **Parent:** version **Example:** 6
build	Build number. **Type:** int **Parent:** version **Example:** 71

Status Codes

Returns 200 on a valid response. Otherwise, returns one of the common status codes. for more information, see GET.

Examples

Request Example

The following requests the version information.

```
GET /CMServerAD/version HTTP/1.1
User-Agent: Fiddler
Host: localhost:3952
```

C# Example

The following example retrieves the version number of CaseMap Server. The sample takes the server URL as a parameter. The sample also uses the DisplayMessage helper method to display the response message. For more information on the helper methods, see CaseMap Server Helper Methods.

```
public static void getServerVersion(string serverResource)
{
    //define the resource and the endpoint
    string resourceName = "/CaseMapAD/CMServerAD.svc/version";
    string endPoint = serverResource + resourceName;

    //create the call
    HttpWebRequest request = WebRequest.Create(endPoint) as HttpWebRequest;
    request.Method = "GET";

    //send it off and get the response.
    HttpWebResponse response = request.GetResponse() as HttpWebResponse;

    //display the response
    DisplayMessage(response);
    Console.ReadLine();

    response.Close();
}
```

Response Example

The following is a response to the request in the previous example.

```
HTTP/1.1 200 OK
Server: ASP.NET Development Server/9.0.0.0
Date: Tue, 09 Aug 2011 21:49:42 GMT
X-AspNet-Version: 2.0.50727
Cache-Control: private
Content-Type: application/xml; charset=utf-8
Content-Length: 199
Connection: Close
```

```
<version xmlns="http://services.lexisnexis.com/xmlschema/litigation-services/casemap/1
" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  <major>1</major>
  <minor>6</minor>
  <build>71</build>
</version>
```

GET get-cases

Description

Retrieves a list of registered cases on the server.

To use this action, send a GET request to the /cases/ resource.

In response to a get-cases request, CaseMap Server returns a <caseSummaries> element. This collection contains the client matter number, the description, the ID, and the case name for each case on the server.

Requests

Syntax

```
GET {ServerNameHere}/CaseMapAD/CMServerAD/cases/

or

GET {ServerNameHere}/CaseMapLA/CMServerLA/cases/
```

Headers

The request includes the GET, User-Agent, and Host headers, which are standard for all CaseMap Server requests. For more information, see About request headers.

Parameters

The URL does not contain any parameters.

Content

The request does not contain any elements in the body.

Responses

Headers

The response includes the headers common to all CaseMap Server responses. For more information, see About response headers.

Content

Name	Description
caseSummaries	Parent element for the resonse; contains a collection of case summaries. **Type:** complex **Children:** caseSummary
caseSummary	Case summary for one case. **Type:** complex **Parent:** caseSummaries **Children:** clientMatterNumber, id, name
clientMatterNumber	The client matter number. **Type:** int **Parent:** caseSummary **Example:** 1234
id	ID number **Type:** int **Parent:** caseSummary **Example:** 5678
name	Friendly name of the case. **Type:** string **Parent:** caseSummary **Example:** CMCase

Status Codes

Returns 200 on a valid response. Otherwise, returns one of the common status codes. for more information, see GET.

Examples

Request Example

The following requests the version information.

```
GET /CMServerAD/cases/ HTTP/1.1
User-Agent: Fiddler
Host: localhost:3952
```

C# Example

The following example retrieves a list of all cases on the specified server. The sample takes the server URL as a parameter. The sample also uses the DisplayMessage helper method to display the response. For more information on the helper methods, see CaseMap Server Helper Methods.

```
public static void getServerCaseViews(string serverResource)
{
    //define the resource and the endpoint
    string resourceName = "/CaseMapAD/CMServerAD.svc/cases";
    string endPoint = serverResource + resourceName;

    //create the call and add in the authorization token
    HttpWebRequest request = WebRequest.Create(endPoint) as HttpWebRequest;
    request.Method = "GET";

    //send it off and get the returned list.
    HttpWebResponse response = request.GetResponse() as HttpWebResponse;

    //display the list
    DisplayMessage(response);
    Console.ReadLine();

    response.Close();
}
```

Response Example

The following is a response to the request in the previous example.

```
HTTP/1.1 200 OK
Server: ASP.NET Development Server/9.0.0.0
Date: Tue, 09 Aug 2011 22:04:08 GMT
X-AspNet-Version: 2.0.50727
Cache-Control: private
Content-Type: application/xml; charset=utf-8
Content-Length: 386
Connection: Close
```

```
<caseSummaries xmlns="http://services.lexisnexis.com/xmlschema/litigation-services/
casemap/1" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  <caseSummary>
    <clientMatterNumber>1234</clientMatterNumber>
    <description>5678</description>
    <id>1</id>
    <name>CMCase</name>
  </caseSummary>
  <caseSummary>
    <clientMatterNumber/>
    <description/>
    <id>6</id>
    <name>Hawkins</name>
  </caseSummary>
</caseSummaries>
```

GET get-case-views

Description

Retrieves a collection of of views associated with the specified case.

To use this action, send a GET request to the /cases/{caseID}/views/ resource.

In response to a get-case-views request, CaseMap Server returns a <views> element. This collection contains the data type ID, ID, and name of all the views associated with the case. You can optionally limit the response to a particular user or data type, using the optional query parameters.

A view is a set of fields and sorting information for a particular spreadsheet.

Requests

Syntax

```
GET {ServerNameHere}/CaseMapAD/CMServerAD/cases/{caseID}/views/?userId=
{userID}&dataTypeId={dataTypeID}

or

GET {ServerNameHere}/CaseMapLA/CMServerLA/cases/{caseID}/views/?userId=
{userID}&dataTypeId={dataTypeID}
```

Headers

The request includes the GET, User-Agent, and Host headers, which are standard for all

CaseMap Server requests. For more information, see About request headers.

Parameters

The URL contains the caseID. In addition, the query string contains the following search values:

Value	Description
`userId`	(optional) ID number of the user to retrieve the spreadsheet views for. **Example:** 3
`dataTypeId`	(optional) Type of data to retrieve. This integer value is returned in the ID element by GET get-case_data. **Example:** 1

Content

The request does not contain any elements in the body.

Responses

Headers

The response includes the headers common to all CaseMap Server responses. For more information, see About response headers.

Content

Name	Description
`views`	Parent element of the response; contains a collection of view objects. **Type:** complex **Children:** view
`view`	Description of a view the user has. **Type:** complex

	Parent: views **Children:** dataTypeId, id, name
dataTypeId	Data type ID. If the dataTypeId URL parameter was used to limit the search, this element will be the same for all views. **Type:** int **Parent:** view **Example:** 3
id	The ID of the view **Type:** int **Parent:** view **Example:** 59228293
name	The name of the view. **Type:** string **Parent:** view **Example:** Document - Favorite

Status Codes

Returns 200 on a valid response. Otherwise, returns one of the common status codes. For more information, see GET.

Examples

Request Example

The following requests the version information.

```
GET /CMServerAD/cases/case-6/views/?userId=3 HTTP/1.1
User-Agent: Fiddler
Host: localhost:3952
```

C# Example

The following example retrieves the case views from the specified CaseMap Server. The sample takes the server URL, case number and userID as a parameter. The sample also uses the DisplayMessage helper method to display the response message. For more information on the helper methods, see CaseMap Server Helper Methods.

```
public static void getServerCaseViews(string serverResource, string caseID,
string userID)
{

    //define the resource and the endpoint
    string resourceName = "/CaseMapAD/CMServerAD.svc/cases/" + caseID + "/
views/?userId=" + userID;
    string endPoint = serverResource + resourceName;

    //create the call and add in the authorization token
    HttpWebRequest request = WebRequest.Create(endPoint) as HttpWebRequest;
    request.Method = "GET";

    //send it off and get the returned list.
    HttpWebResponse response = request.GetResponse() as HttpWebResponse;

    //display the list
    DisplayMessage(response);
    Console.ReadLine();

    response.Close();
}
```

Response Example

The following is a response to the request in the previous example.

```
HTTP/1.1 200 OK
Server: ASP.NET Development Server/9.0.0.0
Date: Tue, 09 Aug 2011 22:20:34 GMT
X-AspNet-Version: 2.0.50727
Cache-Control: private
Content-Type: application/xml; charset=utf-8
Content-Length: 2474
Connection: Close
```

```
<views xmlns="http://services.lexisnexis.com/xmlschema/litigation-services/casemap/1"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  <view>
    <dataTypeId>6</dataTypeId>
    <id>59228293</id>
    <name>Document - Favorite</name>
  </view>
  <view>
    <dataTypeId>18</dataTypeId>
    <id>164510641</id>
    <name>Favorite</name>
  </view>
  <view>
    <dataTypeId>8</dataTypeId>
    <id>206474897</id>
    <name>Event - Favorite</name>
  </view>
  <view>
```

```
  <dataTypeId>10</dataTypeId>
  <id>445172537</id>
  <name>Pleading - Favorite</name>
</view>
<view>
  <dataTypeId>18</dataTypeId>
  <id>484203523</id>
  <name>Most Fields</name>
</view>
<view>
  <dataTypeId>12</dataTypeId>
  <id>506016688</id>
  <name>Other Discovery - Favorite</name>
</view>
<view>
  <dataTypeId>5</dataTypeId>
  <id>541528399</id>
  <name>Organization - Favorite</name>
</view>
<view>
  <dataTypeId>2</dataTypeId>
  <id>571339841</id>
  <name>Jury Instructions</name>
</view>
<view>
  <dataTypeId>11</dataTypeId>
  <id>720547300</id>
  <name>Proceeding - Favorite</name>
</view>
<view>
  <dataTypeId>1</dataTypeId>
  <id>866746305</id>
  <name>Favorite</name>
</view>
<view>
  <dataTypeId>15</dataTypeId>
  <id>868748177</id>
  <name>Assigned To</name>
</view>
<view>
  <dataTypeId>19</dataTypeId>
  <id>882473373</id>
  <name>Most Fields</name>
</view>
<view>
  <dataTypeId>2</dataTypeId>
  <id>1105810968</id>
  <name>Demonstrative Evidence Analysis</name>
</view>
<view>
  <dataTypeId>2</dataTypeId>
  <id>1200365318</id>
  <name>Favorite</name>
</view>
<view>
  <dataTypeId>4</dataTypeId>
  <id>1363887205</id>
```

```
    <name>Person - Favorite</name>
  </view>
  <view>
    <dataTypeId>13</dataTypeId>
    <id>1386622048</id>
    <name>Demonstrative Evidence - Favorite</name>
  </view>
  <view>
    <dataTypeId>1</dataTypeId>
    <id>1474848196</id>
    <name>Date, Fact and Source</name>
  </view>
  <view>
    <dataTypeId>14</dataTypeId>
    <id>1574936314</id>
    <name>Other Object - Favorite</name>
  </view>
  <view>
    <dataTypeId>4</dataTypeId>
    <id>1617081878</id>
    <name>Person - Address/Phone</name>
  </view>
  <view>
    <dataTypeId>9</dataTypeId>
    <id>1674014038</id>
    <name>Place - Favorite</name>
  </view>
  <view>
    <dataTypeId>3</dataTypeId>
    <id>1704210468</id>
    <name>All Object Types - Favorite</name>
  </view>
  <view>
    <dataTypeId>15</dataTypeId>
    <id>1800626038</id>
    <name>Favorite</name>
  </view>
  <view>
    <dataTypeId>7</dataTypeId>
    <id>1884578000</id>
    <name>Other Physical Evidence - Favorite</name>
  </view>
  <view>
    <dataTypeId>19</dataTypeId>
    <id>1885741421</id>
    <name>Favorite</name>
  </view>
  <view>
    <dataTypeId>5</dataTypeId>
    <id>2040184350</id>
    <name>Organization - Address/Phone</name>
  </view>
  <view>
    <dataTypeId>6</dataTypeId>
    <id>2118863299</id>
    <name>Trial Exhibit List</name>
  </view>
```

```
</views>
```

GET get-case-users

Description

Retrieves a collection of of users assigned to a specified case

To use this action, send a GET request to the `/cases/{caseID}/users` resource.

In response to a get-case-users request, CaseMap Server returns a `<userSummaries>` element. This collection contains the first name, ID, last name, and user name of each user assigned to the case.

Requests

Syntax

```
GET {ServerNameHere}/CaseMapAD/CMServerAD/{caseID}/users/

or

GET {ServerNameHere}/CaseMapLA/CMServerLA/{caseID}/users/
```

Headers

The request includes the GET, User-Agent, and Host headers, which are standard for all CaseMap Server requests. For more information, see About request headers.

Parameters

The URL contains the caseID.

Content

The request does not contain any elements in the body.

Responses

Headers

The response includes the headers common to all CaseMap Server responses. For more information, see About response headers.

Content

Name	Description
userSummaries	Parent element for the response, and collection of user summary elements. **Type:** complex **Children:** userSummary
userSummary	Summary of a single user **Type:** complex **Parent:** userSummaries **Children:** emailAddress, firstName, id, lastName, userName
emailAddress	email address. **Type:** string **Parent:** userSummary **Example:** testuser@lexisnexis.com
firstName	First name of the user. **Type:** string **Parent:** userSummary **Example:** Testaccount
id	ID of the user. **Type:** int **Parent:** userSummary **Example:** 6
lastName	Last name of the user. **Type:** string **Parent:** userSummary

	Example: Userperson
userName	Account name of the user. **Type:** string **Parent:** userSummary **Example:** test_user

Status Codes

Returns 200 on a valid response. Otherwise, returns one of the common status codes. For more information, see GET.

Examples

Request Example

The following requests the version information.

```
GET /CMServerAD/case-6/users/ HTTP/1.1
User-Agent: Fiddler
Host: localhost:3952
```

C# Example

The following example retrieves the users of a specified case from the specified CaseMap Server. The sample takes the server URL and case ID as parameters. The sample also uses the DisplayMessage helper method to display the response message. For more information on the helper methods, see CaseMap Server Helper Methods.

```
public static void getServerCaseUsers(string serverResource, string caseID)
{
    //define the resource and the endpoint
    string resourceName = "/CaseMapAD/CMServerAD.svc/case/" + caseID + "/
users/";
    string endPoint = serverResource + resourceName;

    //create the call and add in the authorization token
    HttpWebRequest request = WebRequest.Create(endPoint) as HttpWebRequest;
    request.Method = "GET";

    //send it off and get the returned list.
    HttpWebResponse response = request.GetResponse() as HttpWebResponse;

    //display the list
    DisplayMessage(response);
```

```
    Console.ReadLine();

    response.Close();
}
```

Response Example

The following is a response to the request in the previous example.

```
HTTP/1.1 200 OK
Server: ASP.NET Development Server/9.0.0.0
Date: Tue, 09 Aug 2011 22:10:26 GMT
X-AspNet-Version: 2.0.50727
Cache-Control: private
Content-Type: application/xml; charset=utf-8
Content-Length: 647
Connection: Close
```

```
<userSummaries xmlns="http://services.lexisnexis.com/xmlschema/litigation-services/
casemap/1" xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  <userSummary>
    <emailAddress/>
    <firstName>Test User 1</firstName>
    <id>3</id>
    <lastName>Prapin</lastName>
    <userName>pap_user_1</userName>
  </userSummary>
  <userSummary>
    <emailAddress/>
    <firstName>Test User 3</firstName>
    <id>6</id>
    <lastName>Prapin</lastName>
    <userName>pap_user_3</userName>
  </userSummary>
</userSummaries>
```

GET get-case-data

Description

Retrieves a collection of of spreadsheets for the specified case.

To use this action, send a GET request to the /cases/{caseID}/data resource.

In response to a get-case-data request, CaseMap Server returns a <data> element. This collection contains the location, display sequence, ID, as well as the plural and singular names of the spreadsheet.

Common spreadsheets include the Facts, Issues, and Persons spreadsheets.

Requests

Syntax

```
GET {ServerNameHere}/CaseMapAD/CMServerAD/cases/{caseID}/data

or

GET {ServerNameHere}/CaseMapLA/CMServerLA/cases/{caseID}/data
```

Headers

The request includes the GET, User-Agent, and Host headers, which are standard for all CaseMap Server requests. For more information, see About request headers.

Parameters

The URL contains the caseID.

Content

The request does not contain any elements in the body.

Responses

Headers

The response includes the headers common to all CaseMap Server responses. For more information, see About response headers.

Content

Name	Description
`data`	Parent element for the response; contains a collection of spreadsheet descriptions. **Type:** complex **Children:** dataItem
`dataItem`	Description of a spreadsheet.

	Type: complex **Parent:** data **Children:** location, id, namePlural, nameSingluar
`location`	Relative path of the spreadsheet. **Type:** string **Parent:** data **Example:** /cases/case-6/data/facts
`displaySequence`	Sequence the spreadsheet is in the display. **Type:** int **Parent:** data **Example:** 1
`id`	Data ID. This value can be used in calls to GET get-case-views to limit the types of data returned. **Type:** int **Parent:** data **Example:** 1
`namePlural`	Plural name of the spreadsheet **Type:** string **Parent:** data **Example:** Issues
`nameSingluar`	Singular name of the spreadsheet. **Type:** string **Parent:** data **Example:** Issue

Status Codes

Returns 200 on a valid response. Otherwise, returns one of the common status codes. for more information, see GET.

Examples

Request Example

The following requests the version information.

```
GET /CMServerAD/cases/case-6/data/ HTTP/1.1
User-Agent: Fiddler
Host: localhost:3952
```

C# Example

The following example retrieves the case data from the specified CaseMap Server. The sample takes the server URL and case ID as parameters. The sample also uses the DisplayMessage helper method to display the response message. For more information on the helper methods, see CaseMap Server Helper Methods.

```
public static void getServerCaseData(string serverResource, string caseID)
{
    //define the resource and the endpoint
    string resourceName = "/CaseMapAD/CMServerAD.svc/case/" + caseID + "/
data/";
    string endPoint = serverResource + resourceName;

    //create the call and add in the authorization token
    HttpWebRequest request = WebRequest.Create(endPoint) as HttpWebRequest;
    request.Method = "GET";

    //send it off and get the returned list.
    HttpWebResponse response = request.GetResponse() as HttpWebResponse;

    //display the list
    DisplayMessage(response);
    Console.ReadLine();

    response.Close();
}
```

Response Example

The following is a response to the request in the previous example.

```
HTTP/1.1 200 OK
Server: ASP.NET Development Server/9.0.0.0
Date: Tue, 09 Aug 2011 22:14:00 GMT
X-AspNet-Version: 2.0.50727
Cache-Control: private
Content-Type: application/xml; charset=utf-8
Content-Length: 3721
Connection: Close
```

```
<data xmlns="http://services.lexisnexis.com/xmlschema/litigation-services/casemap/1"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  <dataItem>
```

```
    <location>/cases/case-6/data/facts</location>
    <displaySequence>1</displaySequence>
    <id>1</id>
    <namePlural>Facts</namePlural>
    <nameSingular>Fact</nameSingular>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/issues</location>
    <displaySequence>2</displaySequence>
    <id>2</id>
    <namePlural>Issues</namePlural>
    <nameSingular>Issue</nameSingular>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/all-objects</location>
    <displaySequence>3</displaySequence>
    <id>3</id>
    <namePlural>All Objects</namePlural>
    <nameSingular>All Objects</nameSingular>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/persons</location>
    <displaySequence>4</displaySequence>
    <id>4</id>
    <namePlural>Persons</namePlural>
    <nameSingular>Person</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/organizations</location>
    <displaySequence>5</displaySequence>
    <id>5</id>
    <namePlural>Organizations</namePlural>
    <nameSingular>Organization</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/documents</location>
    <displaySequence>6</displaySequence>
    <id>6</id>
    <namePlural>Documents</namePlural>
    <nameSingular>Document</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/other-physical-evidence</location>
    <displaySequence>7</displaySequence>
    <id>7</id>
    <namePlural>Other Physical Evidence</namePlural>
    <nameSingular>Other Physical Evidence</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/events</location>
    <displaySequence>8</displaySequence>
    <id>8</id>
    <namePlural>Events</namePlural>
```

```
    <nameSingular>Event</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/places</location>
    <displaySequence>9</displaySequence>
    <id>9</id>
    <namePlural>Places</namePlural>
    <nameSingular>Place</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/pleadings</location>
    <displaySequence>10</displaySequence>
    <id>10</id>
    <namePlural>Pleadings</namePlural>
    <nameSingular>Pleading</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/proceedings</location>
    <displaySequence>11</displaySequence>
    <id>11</id>
    <namePlural>Proceedings</namePlural>
    <nameSingular>Proceeding</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/other-discovery</location>
    <displaySequence>12</displaySequence>
    <id>12</id>
    <namePlural>Other Discovery</namePlural>
    <nameSingular>Other Discovery</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/demonstrative-evidence</location>
    <displaySequence>13</displaySequence>
    <id>13</id>
    <namePlural>Demonstrative Evidence</namePlural>
    <nameSingular>Demonstrative Evidence</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/other-objects</location>
    <displaySequence>14</displaySequence>
    <id>14</id>
    <namePlural>Other Objects</namePlural>
    <nameSingular>Other Object</nameSingular>
    <parentID>3</parentID>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/questions</location>
    <displaySequence>15</displaySequence>
    <id>15</id>
    <namePlural>Questions</namePlural>
    <nameSingular>Question</nameSingular>
```

```
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/authorities</location>
    <displaySequence>16</displaySequence>
    <id>18</id>
    <namePlural>Authorities</namePlural>
    <nameSingular>Authority</nameSingular>
  </dataItem>
  <dataItem>
    <location>/cases/case-6/data/extracts-from-authorities</location>
    <displaySequence>17</displaySequence>
    <id>19</id>
    <namePlural>Extracts from Authorities</namePlural>
    <nameSingular>Authority Extract</nameSingular>
  </dataItem>
</data>
```

GET get-case-{spreadsheet-name}

Description

Retrieves data from the specified spreadsheet.

To use this action, send a GET request to the /cases/{caseID}/data/{spreadsheet-name}/ resource. You identify both the view and name format options in the Accept header.

In response to a get-case-{spreadsheet-name} request, CaseMap Server returns a <data> element, which contains the starting record number, the record number, total record number, and an XML representation of a .NET table object. If Page and PageSize are not specified, all records are returned. Optionally, a view and format of object names may be specified via the Accept header. Object names may be Full or Short. If not specified, short names will be returned.

Requests

Syntax

```
GET {ServerNameHere}/CaseMapAD/CMServerAD/cases/{caseID}/data/facts/?
recordCount={recordCount}&startingRecordNumber={recordNumber}

or

GET {ServerNameHere}/CaseMapLA/CMServerLA/cases/{caseID}/data/facts/?
recordCount={recordCount}&startingRecordNumber={recordNumber}
```

Headers

The request includes the GET, User-Agent, and Host headers, which are standard for all CaseMap Server requests. For more information, see About request headers. In addition, the method uses the Accept header to define the limits on the search query, as described in the following table.

Name	Description
Accept	Contains a number of limits on the search query. **Type:** string **Name** / **Description** nameFormat: (optional) format for the name elements. Must be one of the • full • short The default value is short. viewID: (optional) ID of the spreadsheet view to retrieve. The view c both the fields included and the sort order of the records. Th is to return all non-virtual fields and sort the records by reco **Example:** `Accept: nameFormat=full;viewId=1474848196`

Parameters

The URL contains the caseID. In addition, the query string contains the following parameters:

Name	Description
recordCount	The record count. **Example:** 5
startingRecordNumber	Starting record Number **Example:** 3
PageSize&PageNum	(Optional) Paging support to return the number of records in each call **Example:** http://server:port/servicename.svc/cases/{case-[ID]}/data/facts?pagesize=[PGSIZE]&page=[PGNUM] #viewid=[ID]

Content

The request does not contain any elements in the body.

Responses

Headers

The response includes the headers common to all CaseMap Server responses. For more information, see About response headers.

Content

Name	Description
data	parent element for the response **Type:** complex **Children:** startingRecordNumber, recordCount, totalRecordCount, tableData
startingRecordNumber	The starting record number. **Type:** int **Parent:** data **Example:** 5
recordCount	Number of records returned **Type:** int **Parent:** data **Example:** 5
totalRecordCount	Total number of records. **Type:** int **Parent:** data **Example:** 29
tableData	XML representation of a .NET table

Type: complex

For more information, see the .NET Framework documentation.

Status Codes

Returns 200 on a valid response. Otherwise, returns one of the common status codes. for more information, see GET.

Examples

Request Example

The following requests the version information.

```
GET /CMServerAD/cases/case-6/data/facts/?recordCount=5&startingRecordNumber=5 HTTP/1.1
User-Agent: Fiddler
Host: localhost:3952
Accept: nameFormat=full;viewId=1474848196
```

C# Example

The following example retrieves the facts of a specified case from the specified CaseMap Server. The sample takes the server URL, case ID, recordCount, and starting record number as parameters. The sample also uses the DisplayMessage helper method to display the response message. For more information on the helper methods, see CaseMap Server Helper Methods.

```
public static void getServerCaseFacts(string serverResource, string caseID,
string recordCount, string startingRecordNumber)
{
    //define the resource and the endpoint
    string resourceName = "/CaseMapAD/CMServerAD.svc/case/" + caseID + "/
data/facts/?recordCount="
        + recordCount + "&startingRecordNumber=" + startingRecordNumber;
    string endPoint = serverResource + resourceName;

    //create the call
    HttpWebRequest request = WebRequest.Create(endPoint) as HttpWebRequest;
    request.Method = "GET";

    //add in the additional header values
    request.Accept = "nameFormat=full;viewId=1474848196";

    //send it off and get the response
    HttpWebResponse response = request.GetResponse() as HttpWebResponse;

    //display the list
    DisplayMessage(response);
```

```
    Console.ReadLine();

    response.Close();
}
```

Response Example

The following is a response to the request in the previous example.

```
HTTP/1.1 200 OK
Server: ASP.NET Development Server/9.0.0.0
Date: Tue, 09 Aug 2011 22:40:10 GMT
X-AspNet-Version: 2.0.50727
Cache-Control: private
Content-Type: application/xml; charset=utf-8
Content-Length: 6537
Connection: Close
```

```
<data xmlns="http://services.lexisnexis.com/xmlschema/litigation-services/casemap/1"
xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  <startingRecordNumber>5</startingRecordNumber>
  <recordCount>5</recordCount>
  <totalRecordCount>29</totalRecordCount>
  <tableData>
    <xs:schema id="NewDataSet" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns=""
xmlns:msdata="urn:schemas-microsoft-com:xml-msdata">
      <xs:element name="NewDataSet" msdata:IsDataSet="true" msdata:MainDataTable="
facts" msdata:UseCurrentLocale="true">
        <xs:complexType>
          <xs:choice minOccurs="0" maxOccurs="unbounded">
            <xs:element name="facts">
              <xs:complexType>
                <xs:sequence>
                  <xs:element name="F0" msdata:Caption="ID" type="xs:int"/>
                  <xs:element name="F1" msdata:Caption="Date &amp;amp; Time" minOccurs="0"
>
                    <xs:simpleType>
                      <xs:restriction base="xs:string">
                        <xs:maxLength value="40"/>
                      </xs:restriction>
                    </xs:simpleType>
                  </xs:element>
                  <xs:element name="F2" msdata:Caption="Fact Text" minOccurs="0">
                    <xs:simpleType>
                      <xs:restriction base="xs:string">
                        <xs:maxLength value="2147483647"/>
                      </xs:restriction>
                    </xs:simpleType>
                  </xs:element>
                  <xs:element name="F3" msdata:Caption="Source(s)" minOccurs="0">
                    <xs:simpleType>
                      <xs:restriction base="xs:string">
                        <xs:maxLength value="2147483647"/>
                      </xs:restriction>
                    </xs:simpleType>
                  </xs:element>
                </xs:sequence>
              </xs:complexType>
```

```
            </xs:element>
          </xs:choice>
        </xs:complexType>
      </xs:element>
    </xs:schema>
    <diffgr:diffgram xmlns:diffgr="urn:schemas-microsoft-com:xml-diffgram-v1" xmlns:
msdata="urn:schemas-microsoft-com:xml-msdata">
      <DocumentElement xmlns="">
        <facts diffgr:id="facts1" msdata:rowOrder="0">
          <F0>1038690095</F0>
          <F1>2003-12-01</F1>
          <F2>Philip Hawkins promoted to Anstar Biotech Industries VP of Sales.</F2>
          <F3>InterviewNotes</F3>
        </facts>
        <facts diffgr:id="facts2" msdata:rowOrder="1">
          <F0>774696773</F0>
          <F1>2004-01-09 to 2004-01-21</F1>
          <F2>Philip Hawkins negotiates draft Hawkins Employment Agreement with
William Lang.</F2>
          <F3>Hawkins Employment Agreement</F3>
        </facts>
        <facts diffgr:id="facts3" msdata:rowOrder="2">
          <F0>1461490321</F0>
          <F1>2004-02-??</F1>
          <F2>William Lang tells Philip Hawkins that he has changed his mind regarding
the Hawkins Employment Agreement.  It is not in force as it was never signed and
changes were not finalized.</F2>
          <F3>Philip Hawkins, Deposition of William Lang, 11:3.</F3>
        </facts>
        <facts diffgr:id="facts4" msdata:rowOrder="3">
          <F0>383478900</F0>
          <F1>2004-03-??</F1>
          <F2>Susan Sheridan has dinner with Linda Collins and complains about Anstar
Biotech Industries management.</F2>
          <F3>Deposition of Linda Collins, 33:15.</F3>
        </facts>
        <facts diffgr:id="facts5" msdata:rowOrder="4">
          <F0>1902624760</F0>
          <F1>2005-05-11</F1>
          <F2>Philip Hawkins receives Hawkins Performance Review from William Lang.
Is rated a 1 "Outstanding Performer."</F2>
          <F3>Hawkins Performance Review</F3>
        </facts>
      </DocumentElement>
    </diffgr:diffgram>
  </tableData>
</data>
```

GET get-case-issues-outline

Description

Retrieves a list of issues for the specified case.

To use this action, send a GET request to the /cases/{caseID}/data/issues resource. You specify the outline format option in the Accept header.

In response to a get-case-issues request, CaseMap Server returns an <issues> element. This collection contains a description of all the issues in the the case, including ID, name, outline number, short name, and any subissues.

Requests

Syntax

```
GET {ServerNameHere}/CaseMapAD/CMServerAD/cases/{caseID}/data/

or

GET {ServerNameHere}/CaseMapLA/CMServerLA/cases/{caseID}/data/
```

Headers

The request includes the GET, User-Agent, and Host headers, which are standard for all CaseMap Server requests. For more information, see About request headers. In addition, the Accept header can contain the following information:

Name	Description
`Accept`	Contains the formatting and spreadsheet (viewID) information Type: string

Name	Description
`nameFormat`	(Optional) format for the name. Must be one of the following: • full • short The default value is full.
`view`	(Optional) Type of view to retrieve. Must be one of the following: • outline If this is ommitted, the issue data is returned the same way as a spreadsheet.

Example: `Accept: view=outline;nameFormat=short`

Parameters

The URL contains the caseID.

Content

The request does not contain any elements in the body.

Responses

Headers

The response includes the headers common to all CaseMap Server responses. For more information, see About response headers.

Content

Name	Description
issues	Parent element for the response; contains a collection of issue elements. **Type:** complex **Children:** issue
issue	Description of a single issue. **Type:** complex **Parent:** issues **Children:** id, name, outlineNumber, shortName, subIssues
id	ID of the issue. **Type:** int **Parent:** issue **Example:** 1769765926
name	Name of the issue **Type:** string

	Parent: issue **Example:** Wrongful Termination
outlineNumber	Outline number. **Type:** int **Parent:** issue **Example:** 1
shortName	The short name of the issue **Type:** string **Parent:** issue **Example:** WrongfulTermination
subIssues	Additional issues organized under the current issue **Type:** complex **Parent:** issue **Children:** issue

Status Codes

Returns 200 on a valid response. Otherwise, returns one of the common status codes. for more information, see GET.

Examples

Request Example

The following requests the version information.

```
GET /CMServerAD/cases/case-6/data/issues/ HTTP/1.1
User-Agent: Fiddler
Host: localhost:3952
Accept: view=outline
```

C# Example

The following example retrieves the issues of a specified case from the specified CaseMap Server. The sample takes the server URL and case ID as parameters. The sample also uses the DisplayMessage helper method to display the response message. For more information on the helper methods, see CaseMap Server Helper Methods.

```
public static void getServerCaseIssues(string serverResource, string
caseID, string recordCount, string startingRecordNumber)
{
    //define the resource and the endpoint
    string resourceName = "/CaseMapAD/CMServerAD.svc/case/" + caseID + "/
data/issues/
    string endPoint = serverResource + resourceName;

    //create the call
    HttpWebRequest request = WebRequest.Create(endPoint) as HttpWebRequest;
    request.Method = "GET";

    //add in the additional header values
    request.Accept = "view=outline;nameFormat=short";

    //send it off and get the response
    HttpWebResponse response = request.GetResponse() as HttpWebResponse;

    //display the list
    DisplayMessage(response);
    Console.ReadLine();

    response.Close();
}
```

Response Example

The following is a response to the request in the previous example.

```
HTTP/1.1 200 OK
Server: ASP.NET Development Server/9.0.0.0
Date: Tue, 09 Aug 2011 23:26:18 GMT
X-AspNet-Version: 2.0.50727
Cache-Control: private
Content-Type: application/xml; charset=utf-8
Content-Length: 1895
Connection: Close
```

```
<issues xmlns="http://services.lexisnexis.com/xmlschema/litigation-services/casemap/1"
 xmlns:i="http://www.w3.org/2001/XMLSchema-instance">
  <issue>
    <id>1769765926</id>
    <name>Wrongful Termination</name>
    <outlineNumber>1</outlineNumber>
    <shortName>WrongfulTermination</shortName>
    <subIssues/>
  </issue>
  <issue>
    <id>1554959045</id>
    <name>Age Discrimination</name>
    <outlineNumber>2</outlineNumber>
    <shortName>AgeDiscrimination</shortName>
    <subIssues>
      <issue>
        <id>1982336477</id>
        <name>Hawkins Specific</name>
        <outlineNumber>2.1</outlineNumber>
```

```
      <shortName>HawkinsSpecific</shortName>
      <subIssues/>
    </issue>
    <issue>
      <id>1491271512</id>
      <name>Pattern &amp;amp; Practice</name>
      <outlineNumber>2.2</outlineNumber>
      <shortName>Pattern&amp;amp;Practice</shortName>
      <subIssues/>
    </issue>
  </subIssues>
</issue>
<issue>
  <id>182509757</id>
  <name>Retaliation</name>
  <outlineNumber>3</outlineNumber>
  <shortName>Retaliation</shortName>
  <subIssues>
    <issue>
      <id>473045427</id>
      <name>Transfer</name>
      <outlineNumber>3.1</outlineNumber>
      <shortName>Transfer</shortName>
      <subIssues/>
    </issue>
    <issue>
      <id>1339773059</id>
      <name>Demotion</name>
      <outlineNumber>3.2</outlineNumber>
      <shortName>Demotion</shortName>
      <subIssues/>
    </issue>
  </subIssues>
</issue>
<issue>
  <id>1290855574</id>
  <name>Deserved Termination</name>
  <outlineNumber>4</outlineNumber>
  <shortName>DeservedTermination</shortName>
  <subIssues/>
</issue>
<issue>
  <id>323638003</id>
  <name>Damages</name>
  <outlineNumber>5</outlineNumber>
  <shortName>Damages</shortName>
  <subIssues>
    <issue>
      <id>1725246657</id>
      <name>Failure to Mitigate</name>
      <outlineNumber>5.1</outlineNumber>
      <shortName>FailureToMitigate</shortName>
      <subIssues/>
    </issue>
    <issue>
      <id>1666049993</id>
      <name>Lost Wages</name>
```

```
        <outlineNumber>5.2</outlineNumber>
        <shortName>LostWages</shortName>
        <subIssues/>
      </issue>
      <issue>
        <id>777908468</id>
        <name>Mental Anguish</name>
        <outlineNumber>5.3</outlineNumber>
        <shortName>MentalAnguish</shortName>
        <subIssues/>
      </issue>
    </subIssues>
  </issue>
</issues>
```

CaseMap Server Helper Methods

The following methods are used in the code samples throughout this reference.

DisplayMethod

This method displays the return codes and XML body of a message. DisplayMethod is used by all methods to display the returned messages.

```
using System.Xml;
using System.Xml.XPath;

public static void DisplayMessage(HttpWebResponse response)
{
   //Write out the status code number and name
   Console.WriteLine((int)response.StatusCode + " " + response.StatusCode);

   //stream the body of the message into an XML reader.
   XmlTextReader reader = new XmlTextReader(response.GetResponseStream());
   reader.WhitespaceHandling = WhitespaceHandling.None;

   //try to load the XML into an XML doc and display it.
   XmlDocument xd = new XmlDocument();
      try
         {
            xd.Load(reader);
            XmlNode xnodDE = xd.DocumentElement;

            ChildDisplay(xnodDE, 0);
            reader.Close();
         }
       //if anything goes wrong, return.
       catch
          {
             return;
```

```
            }
}

private static void ChildDisplay(XmlNode xnod, int level)
{
    XmlNode xnodWorking;
    String pad = new String(' ', level * 2);

    Console.WriteLine(pad + xnod.Name + "(" + xnod.NodeType.ToString() + ":
" + xnod.Value + ")");

    if (xnod.NodeType == XmlNodeType.Element)
    {
        XmlNamedNodeMap mapAttributes = xnod.Attributes;
        for (int i = 0; i < mapAttributes.Count; i++)
        {
            Console.WriteLine(pad + " " + mapAttributes.Item(i).Name + " =
" + mapAttributes.Item(i).Value);
        }
    }

    if (xnod.HasChildNodes)
    {
        xnodWorking = xnod.FirstChild;
        while (xnodWorking != null)
        {
            ChildDisplay(xnodWorking, level + 1);
            xnodWorking = xnodWorking.NextSibling;
        }
    }
}
```