



2 SOAP Web Services

Introduction

Welcome to the OpenClinica SOAP Web Services Guide. Newcomers to OpenClinica SOAP Web Services should read the overview provided below, and then refer to the documentation for the specific web service(s) of interest.

The OpenClinica SOAP API is part of the OpenClinica-ws package and require installation separate from the standard OpenClinica-web deployment (unlike REST web services which are part of OpenClinica-web). See '[Using OpenClinica Web Services](#)' for more info.

Approved for publication by Ben Baumann. Signed on 2014-07-18 9:04AM

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2.1 Using OpenClinica Web Services

Installation

To use OpenClinica Web Services, they must first be installed. Follow the instructions in the installation guide in your OpenClinica download, or contact your OpenClinica Enterprise support representative.

The OpenClinica Web Services module is deployed on Apache Tomcat as a separate "war" (web application archive) from the main OpenClinica application. A typical OpenClinica Web Services installation is as follows: the 2 directories ("OpenClinica" for 3.1.x-web and "OpenClinica-ws" for 3.1.x-ws) are present in the tomcat/webapps with the same db connection parameters (db=openclinica and clinica user).

In this configuration, you can access the usual web interface through <https://yourDomain.com/OpenClinica>, and access the web services by SOAP requests using <https://yourDomain.com/OpenClinica-ws>. When you verify (as it is explained in the documentation) your -ws installation by loading <https://yourDomain.com/OpenClinica-ws> in your browser, it is only for confirming the application is deployed and can connect to the database. It will return a login page with an empty rss feed, but you cannot access the web application through this login page.

You can then begin to work on SOAP requests, authenticating with the login and the password of a user with the option "Authorize SOAP web services in this account" ticked.

Dates

All date values in OpenClinica Web Services should use the (ISO 8601) YYYY-MM-DD format.

OpenClinica SOAP Web Services Security

OpenClinica Web services use the same security infrastructure as the OpenClinica web application. A valid username and password are required, and the roles/permissions for that account will apply. Passwords should not be added in plain-text, they must be hashed using SHA-1 before being

To authenticate with OpenClinica SOAP Web services:

- Make sure the user account is authorized to use web services (this authorization is granted in User Account setup).
- Hash the password using the SHA-1 algorithm (google for a 'SHA-1 hash generator' if you don't know what this is).
- Modify the "<soapenv:Header/>" line in the SOAP XML request with the following. Provide the user name in clear text and the hashed password string in the appropriate fields.

```
<soapenv:Header>
<wsse:Security soapenv:mustUnderstand="1"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
<wsse:UsernameToken wsu:Id="UsernameToken-27777511"
xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
<wsse:Username>username</wsse:Username>
<wsse:Password
type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#PasswordText">
SHA1 - password</wsse:Password>
</wsse:UsernameToken>
</wsse:Security>
</soapenv:Header>
```

Spring XwsSecurityInterceptor is used to secure OpenClinica Web Services. For more information on Spring XwsSecurity go to:

<http://static.springsource.org/spring-ws/sites/1.5/reference/html/security.html>

Approved for publication by Cal Collins. Signed on 2016-05-09 4:55PM

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2.2 StudySubject Web Service

This service provides API methods for manipulating subjects in OpenClinica. The WSDL file associated with this service can be found here: [http://\\${your instance}/OpenClinica-](http://${your instance}/OpenClinica-)

Approved for publication by Cal Collins. Signed on 2014-04-02 3:55PM

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2.2.1 create (Creates a new studySubject)

Create Method generates a new Study Subject.

Usage

Creates a study subjects in a target study/site. Required and optional fields will be determined by the configuration of the study and site the subject is being created in.

SOAP XML Request and Response Template

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v1="http://openclinica.org/ws/studySubject/v1"
xmlns:bean="http://openclinica.org/ws/beans">
  ${insert header}
  <soapenv:Body>
    <v1:createRequest>
      <!--1 or more repetitions:-->
      <v1:studySubject>
        <bean:label?></bean:label>
        <!--Optional:-->
        <bean:secondaryLabel?></bean:secondaryLabel>
        <bean:enrollmentDate?></bean:enrollmentDate>
        <bean:subject>
          <!--Optional:-->
          <bean:uniqueIdentifier?></bean:uniqueIdentifier>
          <!--Optional:-->
          <bean:gender?></bean:gender>
          <!--You have a CHOICE of the next 2 items at this level-->
          <bean:dateOfBirth?></bean:dateOfBirth>
          <bean:yearOfBirth?></bean:yearOfBirth>
        </bean:subject>
        <bean:studyRef>
        <bean:identifier?></bean:identifier>
        <!--Optional:-->
        <bean:siteRef>
        <bean:identifier?></bean:identifier>
        </bean:siteRef>
```

```

</bean:studyRef>
</v1:studySubject>
</v1:createRequest>
</soapenv:Body>
</soapenv:Envelope>

```

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
<SOAP-ENV:Header/>
<SOAP-ENV:Body>
<createResponse>
<result>success</result>
<label>?</label>
</createResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

Parameters

Request Parameters

| Parameter | UI | Domain | DB | Validations | Datatypes | Examples | Required |
|--------------------------|--------------------|---------------------------------|-------------------------------|--|-----------|--|---|
| label | Study Subject ID | StudySubjectBean:label | study_subject:label | - cannot be longer than 30 characters | String | <label>SSID001</label> Note: The OID of the study subject is truncated if the label contains 9 or more characters. For example, if you create a subject with a Study Subject ID # ALC500001 --> the Study Subject OID saved in the database is: SS_ALC50000 instead of SS_ALC500001 If there is another study subject containing the same first 8 characters as the first study subject, the second study subject will have the same OID as the first study subject with an appended 4 randomly assigned digits to ensure uniqueness. For example, if after you submitted a request to create a Study subject of ALC5000001, you submit a request to create a Study Subject ID # ALC5000002, the Study Subject OID saved in the database is: SS_ALC50000_5363 instead of SS_ALC5000002 | Y - if "Study Parameter Configuration - Generate the Study Subject ID" is set to <i>Manual Entry</i> . N - if "Study Parameter Configuration - Generate the Study Subject ID" is set to <i>Auto-generated and Editable</i> or <i>Auto-generated and Non-editable</i> . |
| secondaryLabel | Secondary ID | StudySubjectBean:secondaryLabel | study_subject:secondary_label | - cannot be longer than 30 characters - should be a valid date in the ISO | String | <secondaryLabel>?</secondaryLabel> | N |
| enrollmentDate | Date of Enrollment | StudySubjectBean:enrollmentDate | study_subject:enrollment_date | 8601 format - date should be in the past | Date | <enrollmentDate>2008-12-12</enrollmentDate> | Y |
| subject:uniqueIdentifier | Person ID | SubjectBean:uniqueIdentifier | subject:unique_identifier | - cannot be longer than 255 characters | String | <uniqueIdentifier>PID001</uniqueIdentifier> | Y - if "Study Parameter Configuration - Person ID Required" is set to <i>Required</i> . N - if "Study Parameter Configuration - Person ID Required" is set to <i>Optional</i> or <i>Not Used</i> . |

| Parameter | UI | Domain | DB | Validations | Datatypes | Examples | Required |
|---------------------|--------------------|-------------------------|-------------------------|---|-----------|---------------------------------------|---|
| subject:gender | Sex | SubjectBean:gender | subject:gender | - should be 'm' or 'f' | char | <gender>m</gender> | Y - if "Study Parameter Configuration - Sex Required" is set to Yes. N - if "Study Parameter Configuration - Sex Required" is set to No. Y - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Yes. N - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Not Used or Only Year of Birth. Y - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Only Year of Birth. N - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Not Used or Yes. |
| subject:dateOfBirth | Date of Birth | SubjectBean:dateOfBirth | subject:date_of_birth | - should be a valid date in the ISO 8601 format | Date | <dateOfBirth>2008-12-12</dateOfBirth> | Y - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Yes. N - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Not Used or Only Year of Birth. Y - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Only Year of Birth. N - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Not Used or Yes. |
| subject:yearOfBirth | Date of Birth | SubjectBean:dateOfBirth | subject:date_of_birth | - should be a valid year | Date | <yearOfBirth>2008</yearOfBirth> | Y - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Yes. N - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Not Used or Only Year of Birth. Y - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Only Year of Birth. N - if "Study Parameter Configuration - Collect Subject Date of Birth" is set to Not Used or Yes. |
| studyRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | - should be a valid study identifier | String | <identifier>StudyA</identifier> | Y |
| siteRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | - should be a valid site identifier | String | <identifier>SiteA</identifier> | N |

Response Parameters

| Parameter | UI | Domain | DB | Result on success | Result on fail |
|-----------|------------------|------------------------|---------------------|--------------------------|--|
| label | Study Subject ID | StudySubjectBean:label | study_subject:label | <label>SSID001</label> | <label/> |
| result | n/a | n/a | n/a | <result>Success</result> | <result>Fail</result> |
| warning | n/a | n/a | n/a | n/a | n/a |
| error | n/a | n/a | n/a | n/a | <error>An error message indicating reason of failure</error> |

2.2.2 listAllByStudy (List studySubjects in a study)

Lists studySubjects in a study regardless of its state (i.e It also includes a removed studySubject in a study).

Usage

Lists study subjects that are a part of an OpenClinica study or site.

SOAP XML Request and Response Template

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v1="http://openclinica.org/ws/studySubject/v1"
xmlns:bean="http://openclinica.org/ws/beans">
  ${insert header}
  <soapenv:Body>
    <v1:listAllByStudyRequest>
      <bean:studyRef>
        <bean:identifier?</bean:identifier>
        <!--Optional:
        <bean:siteRef>
        <bean:identifier?</bean:identifier>
        </bean:siteRef--!>
        </bean:studyRef>
      </v1:listAllByStudyRequest>
    </soapenv:Body>
  </soapenv:Envelope>
```

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <ns4:listAllByStudyResponse
xmlns:ns4="http://openclinica.org/ws/studySubject/v1"
xmlns:ns2="http://openclinica.org/ws/beans"
xmlns:ns3="http://openclinica.org/ws/crf/v1">
      <ns4:result>Success</ns4:result>
      <ns4:studySubjects>
        <ns2:studySubject>
          <ns2:label>label</ns2:label>
          <ns2:secondaryLabel/>
          <ns2:enrollmentDate>2010-03-31</ns2:enrollmentDate>
          <ns2:subject>
            <ns2:uniqueIdentifier/>
            <ns2:gender>m</ns2:gender>
          </ns2:subject>
          <ns2:events>
            <ns2:event>
              <ns2:location>Boston</ns2:location>
              <ns2:startDate>2010-03-31</ns2:startDate>
              <ns2:startTime>00:00:00</ns2:startTime>
            </ns2:event>
          </ns2:events>
        </ns2:studySubject>
      </ns4:studySubjects>
    </ns4:listAllByStudyResponse>
  </SOAP-ENV:Body>
```

</SOAP-ENV:Envelope>

Parameters

Request Parameters

| Parameter | UI | Domain | DB | Validations | Datatypes | Examples | Required |
|---------------------|--------------------|----------------------|-------------------------|-------------|-----------|---|----------|
| studyRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | N/A | String | <identifier>study identifier</identifier> | Y |
| siteRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | N/A | String | <identifier>site identifier</identifier> | N |

Response Parameters

| Parameter | UI | Domain | DB | Result on success | Result on fail |
|-----------------------------|-----------------|---------------------------------|-------------------------------|---|--|
| result | n/a | n/a | n/a | <result>Success</result> | <result>Fail</result> |
| warning | n/a | n/a | n/a | <warning>A warning message</warning> | n/a |
| error | n/a | n/a | n/a | n/a | <error>An error message indicating reason of failure</error> |
| studySubject:label | StudySubject ID | StudySubjectBean:label | study_subject:label | <label>label</label> | n/a |
| studySubject:secondaryLabel | Secondary ID | StudySubjectBean:secondaryLabel | study_subject:secondary_label | <secondaryLabel/> or <secondaryLabel>label</secondaryLabel> | n/a |
| subject:uniqueIdentifier | Person ID | SubjectBean:uniqueIdentifier | subject:unique_identifier | <uniqueIdentifier/> or <uniqueIdentifier>uid</uniqueIdentifier> | n/a |
| subject:gender | Sex | SubjectBean:gender | subject:gender | <gender>m</gender> or <gender>f</gender> | n/a |
| subject:dateOfBirth | Date of Birth | SubjectBean:dateOfBirth | subject:date_of_birth | <dateOfBirth>2008-12-12</dateOfBirth> | n/a |
| subject:yearOfBirth | Date of Birth | SubjectBean:dateOfBirth | subject:date_of_birth | <yearOfBirth>2008</yearOfBirth> | n/a |
| event:location | Location | StudyEvent:location | study_event:location | <location>Boston</location> | n/a |
| event:startDate | Start Date/Time | StudyEvent:dateStarted | study_event:date_start | <startDate>2010-08-16</startDate> | n/a |
| event:startTime | Start Date/Time | StudyEvent:dateStarted | study_event:date_start | <startTime>12:00:00</startTime> | n/a |
| event:endDate | End Date/Time | StudyEvent:dateEnded | study_event:date_end | <endDate>2010-08-16</endDate> | n/a |
| event:endTime | End Date/Time | StudyEvent:dateEnded | study_event:date_ended | <endTime>15:00:00</endTime> | n/a |

2.2.3 isStudySubject (Queries OpenClinica if studySubject exists in a Study)

Queries OpenClinica if Study Subject exists.

Usage

Queries OpenClinica if a study subjects is assigned to a target study/site. Study Subject is looked up by Label (aka Study Subject ID) only.

If only the Study ID is provided (and not the Site ID), the web service will check for the Study Subject across all sites in the study and, if found, return a result of 'Success'. If a Site Identifier is also provided the scope of the query will be limited to subjects in that study and site.

SOAP XML Request and Response Template

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v1="http://openclinica.org/ws/studySubject/v1"
xmlns:bean="http://openclinica.org/ws/beans">
  header
  <soapenv:Body>
    <v1:isStudySubjectRequest>
    <v1:studySubject>
      <bean:label?</bean:label>
      <!--Lines selected in grey can be deleted from envelope. This
information is NOT used by WS-->
      <!--Optional:-->
      <bean:secondaryLabel?</bean:secondaryLabel>
      <bean:enrollmentDate?</bean:enrollmentDate>
      <bean:subject>
      <!--Optional:-->
      <bean:uniqueIdentifier?</bean:uniqueIdentifier>
      <!--Optional:-->
      <bean:gender?</bean:gender>
      <!--You have a CHOICE of the next 2 items at this level-->
      <bean:dateOfBirth?</bean:dateOfBirth>
      <bean:yearOfBirth?</bean:yearOfBirth>
      </bean:subject>
      <bean:studyRef>
      <bean:identifier?</bean:identifier>
      <!--Optional:-->
      <bean:siteRef>
      <bean:identifier?</bean:identifier>
      </bean:siteRef>
      </bean:studyRef>
    </v1:studySubject>
  </v1:isStudySubjectRequest>
</soapenv:Body>
</soapenv:Envelope>
```

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <createResponse>
      <result>success</result>
      <label?</label>
    </createResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Parameters

Request Parameters

| Parameter | UI | Domain | DB | Validations | Datatypes | Examples | Required |
|---------------------|--------------------------|------------------------|-------------------------|---------------------------------------|-----------|---------------------------------|----------|
| label | Study Subject ID | StudySubjectBean:label | study_subject:label | - cannot be longer than 30 characters | String | <label>Sub A 101</label> | Y |
| studyRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | - should be a valid study identifier | String | <identifier>StudyA</identifier> | Y |
| siteRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | - should be a valid site identifier | String | <identifier>SiteA</identifier> | N |

Response Parameters

| Parameter | UI | Domain | DB | Result on success | Result on fail |
|---------------------|-------------------------|-----------------|----------------------|--------------------------|--|
| studySubject:oc_oid | Study Subject OID | studySubjectOID | study_subject:oc_oid | <label>SSID001</label> | <label/> |
| result | n/a | n/a | n/a | <result>Success</result> | <result>Fail</result> |
| warning | n/a | n/a | n/a | n/a | n/a |
| error | n/a | n/a | n/a | n/a | <error>An error message indicating reason of failure</error> |

2.3 Event Web Service

This service provides API methods for manipulating study events in OpenClinica. The WSDL file associated with this service could be found here: [http://\\${your instance}/OpenClinica-ws/ws/event/v1/eventWsdsl.wsdl](http://${your instance}/OpenClinica-ws/ws/event/v1/eventWsdsl.wsdl).

Approved for publication by Cal Collins. Signed on 2014-04-02 3:54PM

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2.3.1 schedule (Schedules an event)

Schedule an event

Usage

Schedules a single study subject event (visit) in an OpenClinica Study.

NOTE: the scheduleEvent WSDL states that more than one event can be scheduled at a time, however the application will only schedule one event per request. See [13008](#) for further information.

SOAP XML Request and Response Template

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v1="http://openclinica.org/ws/event/v1"
xmlns:bean="http://openclinica.org/ws/beans">
  ${insert header}
  <soapenv:Body>
    <v1:scheduleRequest>

      <v1:event>
        <bean:studySubjectRef>
        <bean:label?</bean:label>
        </bean:studySubjectRef>
        <bean:studyRef>
        <bean:identifier?</bean:identifier>
        <!--Optional:-->
        <bean:siteRef>
        <bean:identifier?</bean:identifier>
        </bean:siteRef>
        </bean:studyRef>
        <bean:eventDefinitionOID?</bean:eventDefinitionOID>
        <bean:location?</bean:location>
        <bean:startDate?</bean:startDate>
        <!--Optional:-->
        <bean:startTime?</bean:startTime>
        <!--Optional:-->
        <bean:endDate?</bean:endDate>
        <!--Optional:-->
        <bean:endTime?</bean:endTime>
        </v1:event>
      </v1:scheduleRequest>
    </soapenv:Body>
  </soapenv:Envelope>
```

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV:Header/>
  <SOAP-ENV:Body>
    <scheduleResponse>
```

```

<result>success</result>
<eventDefinitionOID>SE_TEST</eventDefinitionOID>
<studySubjectOID>SS_PERSON</studySubjectOID>
<studyEventOrdinal>1</studyEventOrdinal>
</scheduleResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

Parameters

Request Parameters

| Element | UI | Domain | DB | Validations | Datatypes | Examples | Required |
|-----------------------|---|------------------------------|-------------------------------|---|-----------|---|----------|
| studySubjectRef.label | Study Subject ID | StudySubjectBean:label | study_subject:label | - should be a valid study subject ID | String | <label>SSID001</label> | Y |
| eventDefinitionOID | OID (Manage All Event Definitions Screen) | StudyEventDefinitionBean:oid | study_event_definition:oc_oid | - should be a valid event definition OID | String | <eventDefinitionOID>OC_OID</eventDefinitionOID> | Y |
| location | Location (Schedule Study Event Screen) | StudyEventBean:location | study_event:location | n/a | String | <location>Waltham</location> | Y |
| startDate | Start Date/Time (Schedule Study Event Screen) | StudyEventBean:dateStarted | study_event:date_start | - should be a valid date in the ISO 8601 format | Date | <startDate>2008-12-12</startDate> | Y |
| startTime | Start Date/Time (Schedule Study Event Screen) | StudyEventBean:dateStarted | study_event:date_start | - should be a valid time in the ISO 8601 format | Date | <startTime>12:00</startTime> | N |
| endDate | End Date/Time (Schedule Study Event Screen) | StudyEventBean:dateEnded | study_event:date_end | - should be a valid date in the ISO 8601 format | Date | <endDate>2008-12-12</endDate> | N |
| endTime | End Date/Time (Schedule Study Event Screen) | StudyEventBean:dateEnded | study_event:date_end | - should be a valid time in the ISO 8601 format | Date | <endTime>15:00</endTime> | N |
| studyRef.identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | - should be a valid study identifier | String | <identifier>StudyA</identifier> | Y |
| siteRef.identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | - should be a valid site identifier | String | <identifier>SiteA</identifier> | N |

Response Parameters

| Parameter | UI | Domain | DB | Result on success | Result on fail |
|--------------------|---|------------------------------|-------------------------------|--|----------------|
| eventDefinitionOID | OID (Manage All Event Definitions Screen) | StudyEventDefinitionBean:oid | study_event_definition:oc_oid | <eventDefinitionOID>SE_TEST</eventDefinitionOID> | n/a |
| studySubjectOID | OID (Subject Matrix) | StudySubjectBean:oid | study_subject:oc_oid | <studySubjectOID>SS_OID</studySubjectOID> | n/a |

| Parameter | UI | Domain | DB | Result on success | Result on fail |
|-------------------|--|------------------------|----------------------------|--|--|
| studyEventOrdinal | Event (Occurrence Number) - (View Subject Screen | StudyEventBean.ordinal | study_event.sample_ordinal | <studyEventOrdinal>1</studyEventOrdinal> | n/a |
| result | n/a | n/a | n/a | <result>Success</result> | <result>Fail</result> |
| warning | n/a | n/a | n/a | | n/a |
| error | n/a | n/a | n/a | n/a | <error>An error message indicating reason of failure</error> |

2.4 Data Web Service

This service provides API methods for manipulating CRF item data in OpenClinica. The WSDL file associated with this service could be found here:

<http://host:8080/OpenClinica/ws/data/v1/dataWsdL.wsdl> .

Approved for publication by Cal Collins. Signed on 2014-04-02 3:53PM

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2.4.1 Import

Usage

This web service inserts CRF item data. The data supplied to the method should be in [CDISC ODM XML format](#).

Starting with OpenClinica release 3.6, the **UpsertOn** tag and **OpenClinica:Status** clause are available. Details are provided in [CDISC ODM XML format](#)

Starting with OpenClinica release 3.1.3 if you have [Rules](#) attached to your CRF, you can run them when uploading data from web services by turning on ImportDataEntry flag in rules definition. For example, in order to enable a discrepancy note rule action executed on import the rule should have ImportDataEntry flag set to true:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<RuleImport>
```

```
  <RuleAssignment>
```

```
    <Target>I_RULES_WEIGHT</Target>
```

```
    <RuleRef OID="RU2">
```

```
      <DiscrepancyNoteAction IfExpressionEvaluates="false">
```

```

    <Run AdministrativeDataEntry="true"
      InitialDataEntry="true" DoubleDataEntry="true"
      ImportDataEntry="true" Batch="false"/>
    <Message>This is a discrepancy note test</Message>
  </DiscrepancyNoteAction>
</RuleRef>
</RuleAssignment>
<RuleDef OID="RU2" Name="Blank exam date">
  <Description>CRF can not be blank.</Description>
  <Expression>I_RULES_HEIGHT eq "100"</Expression>
</RuleDef>
</RuleImport>

```

SOAP XML Request and Response Template

```

<soapenv:Envelope
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:v1="http://openclinica.org/ws/data/v1"
  xmlns:OpenClinica="http://www.openclinica.org/ns/odm_ext_v130/v3.1"
  >
  <soapenv:Header>
    <wsse:Security soapenv:mustUnderstand="1"
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
      -wssecurity-secext-1.0.xsd">
      <wsse:UsernameToken wsu:Id="UsernameToken-27777511"
        xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
        wssecurity-utility-1.0.xsd">
        <wsse:Username>user</wsse:Username>
        <wsse:Password
          Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-usern
          ame-token-profile-1.0#PasswordText">password</wsse:Password>
        </wsse:UsernameToken>
      </wsse:Security>
    </soapenv:Header>
    <soapenv:Body>
      <v1:importRequest>
      <odm><![CDATA[
      <ODM . . . .

```

```

.....
</ODM>]]>
</odm>
</v1:importRequest>
</soapenv:Body>
</soapenv:Envelope>

```

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
<SOAP-ENV:Header/>
<SOAP-ENV:Body>
.....
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

Parameters

Request Parameters

| Parameter | UI | Domain | DB | Validations | Datatypes | Examples | Required |
|---------------------|-----------------------|----------------------|-------------------------|-------------|-----------|--|----------|
| studyRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | N/A | String | <identifier>study identifier</identifier> | Y |
| siteRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | N/A | String | <identifier>site identifier</identifier> | N |

Response Parameters

| Parameter | UI | Domain | DB | Result on success | Result on fail |
|-----------|-----|--------|-----|---|--|
| result | n/a | n/a | n/a | <result>Success</result> | <result>Fail</result> |
| warning | n/a | n/a | n/a | <warning>A warning message</warning> | n/a |
| error | n/a | n/a | n/a | n/a | <error>An error message indicating reason of failure</error> |

2.5 Study Web Service

This service provides API methods for manipulating studies in OpenClinica. The WSDL file associated with this service could be found here:

<http://host:8080/OpenClinica/ws/study/v1/studyWsdL.wsdl>

Approved for publication by Cal Collins. Signed on 2014-04-02 3:51PM

Not valid unless obtained from the OpenClinica document management system on the day of use.

2.5.1 getMetadata (Returns study metadata)

Returns the study metadata. The roles associated with the user running this webservice will determine whether the study metadata is displayed.

Usage

Returns the study metadata for the requested study in OpenClinica. It will contain information like the Study Name, Unique Protocol ID, and Study OID.

SOAP XML Request and Response Template

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v1="http://openclinica.org/ws/study/v1"
xmlns:bean="http://openclinica.org/ws/beans">
<soapenv:Header>
<wsse:Security soapenv:mustUnderstand="1"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
<wsse:UsernameToken wsu:Id="UsernameToken-27777511"
xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-utility-1.0.xsd">
<wsse:Username>user</wsse:Username>
<wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-usern
ame-token-profile-1.0#PasswordText">password</wsse:Password>
</wsse:UsernameToken>
</wsse:Security>
</soapenv:Header>
<soapenv:Body>
<v1:getMetadataRequest>
<v1:studyMetadata>
<bean:studyRef>
<bean:identifier>identifier</bean:identifier>
</bean:studyRef>
</v1:studyMetadata>
</v1:getMetadataRequest>
</soapenv:Body>
</soapenv:Envelope>
```

```

<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
<SOAP-ENV:Header/>
<SOAP-ENV:Body>
<createResponse xmlns="http://openclinica.org/ws/study/v1">
<result>Success</result>
<odm><![CDATA[<Study OID="S_DEFAULTS1">
<GlobalVariables>
<StudyName>Default Study</StudyName>
<StudyDescription>

</StudyDescription>
<ProtocolName>default-study</ProtocolName>
</GlobalVariables>
<MetaDataVersion>
<Protocol>
</Protocol>
</MetaDataVersion>
</Study>]]></odm>
</createResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

Parameters

Request Parameters

| Parameter | UI | Domain | DB | Validations | Datatypes | Examples | Required |
|---------------------|-----------------------|----------------------|-------------------------|-------------|-----------|--|----------|
| studyRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | N/A | String | <identifier>study identifier</identifier> | Y |
| siteRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | N/A | String | <identifier>site identifier</identifier> | N |

Response Parameters

| Parameter | UI | Domain | DB | Result on success | Result on fail |
|-----------|-----|--------|-----|---|--|
| result | n/a | n/a | n/a | <result>Success</result> | <result>Fail</result> |
| warning | n/a | n/a | n/a | <warning>A warning message</warning> | n/a |
| error | n/a | n/a | n/a | n/a | <error>An error message indicating reason of failure</error> |

2.5.2 listAll (Lists studies)

Returns a list of studies/sites. The roles associated with the user running this webservice will determine which studies/sites are listed.

Usage

Returns a list of all the studies and sites that are part of your OpenClinica instance and accessible by the web services user. The system will not list studies and sites the user does not have access to.

SOAP XML Request and Response Template

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v1="http://openclinica.org/ws/study/v1">
<soapenv:Header>
<wsse:Security soapenv:mustUnderstand="1"
xmlns:wss="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
<wsse:UsernameToken wsu:Id="UsernameToken-27777511"
xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-utility-1.0.xsd">
<wsse:Username>user</wsse:Username>
<wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-usern
ame-token-profile-1.0#PasswordText">password</wsse:Password>
</wsse:UsernameToken>
</wsse:Security>
</soapenv:Header>
<soapenv:Body>
<v1:listAllRequest/>
</soapenv:Body>
</soapenv:Envelope>
```

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
<SOAP-ENV:Header/>
<SOAP-ENV:Body>
<listAllResponse xmlns="http://openclinica.org/ws/study/v1">
<result>Success</result>
<studies>
<study>
<identifier>default-study</identifier>
```

```

<oid>S_DEFAULTS1</oid>
<name>Default Study</name>
</study>
<study>
<identifier>Study A</identifier>
<oid>S_STUDYA</oid>
<name>A new study</name>
<sites>
<site>
<identifier>Site A</identifier>
<oid>S_SITEA</oid>
<name>1 Site</name>
</site>
</sites>
</study>
</studies>
</listAllResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

Parameters

Request Parameters

Not Available

Response Parameters

| Parameter | UI | Domain | DB | Result on success | Result on fail |
|------------------|--------------------|----------------------|-------------------------|--|--|
| result | n/a | n/a | n/a | <result>Success</result> | <result>Fail</result> |
| warning | n/a | n/a | n/a | <warning>A warning message</warning> | n/a |
| error | n/a | n/a | n/a | n/a | <error>An error message indicating reason of failure</error> |
| study:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | <identifier>default-study</identifier> | n/a |
| study:oid | OID | StudyBean:oid | study:oc_oid | <oid>S_STUDY</oid> | n/a |
| study:name | Name | StudyBean:name | study:name | <name>Default Study</name> | n/a |
| site:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | <identifier>default-site</identifier> | n/a |
| site:oid | OID | StudyBean:name | study:oc_oid | <oid>S_SITE</oid> | n/a |
| site:name | Name | StudyBean:oid | study:name | <name>Default Site</name> | n/a |

2.6 StudyEventDefinition Web Service

This service provides API methods for retrieving study event definitions for a study in OpenClinica.

The WSDL file associated with this service can be found here:
ws/studyEventDefinition/v1/studyEventDefinitionWsdL.wsdl.

Approved for publication by Cal Collins. Signed on 2014-04-02 3:51PM

Not valid unless obtained from the OpenClinica document management system on the day of use.

2.6.1 listAll (Lists study event definitions in study)

Returns a list of study event definitions.

Usage

Returns a list of study event definitions and their properties for a single study in OpenClinica.

SOAP XML based Request and Response Template

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:v1="http://openclinica.org/ws/studyEventDefinition/v1"
xmlns:bean="http://openclinica.org/ws/beans">
<soapenv:Header>
<wsse:Security soapenv:mustUnderstand="1"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd">
<wsse:UsernameToken wsu:Id="UsernameToken-27777511"
xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-utility-1.0.xsd">
<wsse:Username>user</wsse:Username>
<wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-usern
ame-token-profile-1.0#PasswordText">password</wsse:Password>
</wsse:UsernameToken>
</wsse:Security>
</soapenv:Header>
<soapenv:Body>
<v1:listAllRequest>
<v1:studyEventDefinitionListAll>
<bean:studyRef>
<bean:identifier>PG33xyz</bean:identifier>
</bean:studyRef>
</v1:studyEventDefinitionListAll>
```

```
</v1:listAllRequest>
</soapenv:Body>
</soapenv:Envelope>
```

```
<SOAP-ENV:Envelope xmlns:SOAP-
ENV="http://schemas.xmlsoap.org/soap/envelope/">
<SOAP-ENV:Header/>
<SOAP-ENV:Body>
<listAllResponse
xmlns="http://openclinica.org/ws/studyEventDefinition/v1">
<result>Success</result>
<studyEventDefinitions>
<studyEventDefinition>
<oid>SE_INITIALV</oid>
<name>Initial Visit</name>
<eventDefinitionCrfs>
<eventDefinitionCrf>
<required>>true</required>
<doubleDataEntry>>false</doubleDataEntry>
<passwordRequired>>false</passwordRequired>
<hideCrf>>false</hideCrf>
<sourceDataVerificaiton>100% Required</sourceDataVerificaiton>
<crf>
<oid>F_DEMO</oid>
<name>Demographics-Dynamics</name>
</crf>
<defaultCrfVersion>
<oid>F_DEMO_1</oid>
<name>1</name>
</defaultCrfVersion>
</eventDefinitionCrf>
<eventDefinitionCrf>
<required>>true</required>
<doubleDataEntry>>false</doubleDataEntry>
<passwordRequired>>false</passwordRequired>
<hideCrf>>false</hideCrf>
<sourceDataVerificaiton>Not Required</sourceDataVerificaiton>
<crf>
<oid>F_GROU</oid>
<name>Groups_Adverse_Events</name>
</crf>
<defaultCrfVersion>
<oid>F_GROU_NONC</oid>
<name>Non-Cascade</name>
</defaultCrfVersion>
</eventDefinitionCrf>
</eventDefinitionCrfs>
```

```

</studyEventDefinition>
</studyEventDefinitions>
</listAllResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

Parameters

Request Parameters

| Parameter | UI | Domain | DB | Validations | Datatypes | Examples | Required |
|---------------------|-----------------------|----------------------|-------------------------|-------------|-----------|---|----------|
| studyRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | N/A | String | <identifier>study identifier</identifier> | Y |
| siteRef:identifier | Unique Protocol ID | StudyBean:identifier | study:unique_identifier | N/A | String | <identifier>site identifier</identifier> | N |

Response Parameters

| Parameter | UI | Domain | DB | Result on success | Result on fail |
|---|--------------------------|---|--|--|--|
| result | n/a | n/a | n/a | <result>Success</result> | <result>Fail</result> |
| warning | n/a | n/a | n/a | <warning>A warning message</warning> | n/a |
| error | n/a | n/a | n/a | n/a | <error>An error message indicating reason of failure</error> |
| studyEventDefinition:oid | OID | StudyEventDefinitionBean:oid | study_event_definition:oc_oid | <oid>SE_INITIALV</oid> | n/a |
| studyEventDefinition:name | Name | StudyEventDefinitionBean:name | study_event_definition:name | <name>S_STUDY</name> | n/a |
| eventDefinitionCrf:required | Required | EventDefinitionCRFBean:requiredCRF | event_definition_crf:required_crf | <required>true</required> | n/a |
| eventDefinitionCrf:doubleDataEntry | Double Data Entry | EventDefinitionCRFBean:doubleEntry | event_definition_crf:double_entry | <doubleDataEntry>>false</doubleDataEntry> | n/a |
| eventDefinitionCrf:passwordRequired | Password Required | EventDefinitionCRFBean:electronicSignature | event_definition_crf:electronic_signature | <passwordRequired>>false</passwordRequired> | n/a |
| eventDefinitionCrf:hideCrf | Hide CRF | EventDefinitionCRFBean:hideCrf | event_definition_crf:hide_crf | <hideCrf>>false</hideCrf> | n/a |
| eventDefinitionCrf:sourceDataVerificaiton | Source Data Verification | EventDefinitionCRFBean:sourceDataVerification | event_definition_crf:source_data_verification_code | <sourceDataVerificaiton>100% Required</sourceDataVerificaiton> | n/a |
| crf:oid | OID | CRFBean:name | crf:name | <name>Demographics-Dynamics</name> | n/a |
| crf:name | Name | CRFBean:oid | crf:oc_oid | <oid>F_DEMO</oid> | n/a |
| defaultCrfVersion:oid | n/a | CRFVersionBean:oid | crf_version:oc_oid | <oid>F_DEMO</oid> | n/a |
| defaultCrfVersion:name | Default Version | CRFVersionBean:name | crf_version:name | <name>1</name> | n/a |

2.7 Screencasts: Intro, Installation, and Usage Examples

About Web Service, and Installation

)

Usage Example: Create a Study Subject

)

Usage Example: List Study Subjects, If a Study Subject Exists, and Schedule Event

)

Approved for publication by Cal Collins. Signed on 2014-04-02 3:50PM

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