Pearson System Integration

Automate Your Workflow

Pearson’s standards-based web services interface allows you to extend your own talent management platform, integrate with third party services, and easily automate your talent assessment processes using our solutions.

Accessing and Integrating Assessments – Web Connect

- Integrate assessments into an applicant tracking system
- Integrate assessments into a custom HR system
- Allow candidates to self-register for assessments (i.e., through a self registration form on your intranet)

Returning the Assessment Results – Data Streaming

- Assessment data (e.g. raw scores, standard/percentile scores, organizational/demographic questions) can be streamed to the customer’s application for use in customized feedback reports or other reporting functions

Integration Requirements: Just one of the following

- Microsoft BizTalk Server
- Microsoft .NET, Java, PHP
- Or any other tool that supports Web Services with WSDL 1.1 and SOAP 1.2

Customer Account Requirements:

- Usage based account
- User account enabled for web services
- Customer’s implementation must pass a qualifications test
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1. Introduction

This document provides eAssessTalent.com customers with detailed instructions about the Pearson Web Services Interface. This interface allows you to order assessments via a standards-compliant interface to automate your talent assessment processes, extend your talent management platform, or integrate with third-party services.

1.1. Standards

The service interface is based upon the following standards:

- SOAP 1.2 (WWW Consortium, http://www.w3.org/TR/soap12)
- WSDL 1.1 (WWW Consortium, http://www.w3.org/TR/wsd1)
- HR-XML 2.5 (HR-XML Consortium, http://www.hr-xml.org)

1.2. Definitions

The table below defines the terminology used in this document:

<table>
<thead>
<tr>
<th>Object</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>The account that was created by Pearson</td>
</tr>
<tr>
<td>User</td>
<td>A user who was created within an account by the account system administrator</td>
</tr>
<tr>
<td>Candidate</td>
<td>An individual who is taking an assessment</td>
</tr>
<tr>
<td>Assessment</td>
<td>A test that will be administered to the candidate</td>
</tr>
<tr>
<td>Product</td>
<td>A product that is associated with a candidate is called an assessment</td>
</tr>
</tbody>
</table>

Acronyms library:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP</td>
<td>Talent Assessment Platform</td>
</tr>
<tr>
<td>HR-XML</td>
<td>Extensible Markup Language specifications for Human-Resources related data-exchanges</td>
</tr>
<tr>
<td>SOAP</td>
<td>Simple Object Access Protocol (a protocol for exchanging XML-based messages over computer networks)</td>
</tr>
<tr>
<td>WSDL</td>
<td>Web Service Description Language</td>
</tr>
</tbody>
</table>

Sample identifiers used in XML-examples:

<table>
<thead>
<tr>
<th>Object</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ClientID</td>
<td>YQDPHSDP</td>
</tr>
<tr>
<td>UserID</td>
<td>ZYDEHLEO</td>
</tr>
<tr>
<td>PackageISBN</td>
<td>581861262</td>
</tr>
<tr>
<td>NormID</td>
<td>NNXKWIUA</td>
</tr>
<tr>
<td></td>
<td>DXUMAUFJ</td>
</tr>
</tbody>
</table>
1.3. Workflow

![Workflow Diagram]

**Actor**
- **Assessment Requester**
- **Assessment Provider (Harcourt)**
- **Candidate**

**Activity Flow**
1. **Request Assessment** (AssessmentOrderRequest) → **Process request—create candidate & order records**
2. **Enter wait state** → **Email invitation or direct link candidate to assessment URL**
3. **AssessmentStatusRequest** → **Web-based assessment** → **Open assessment URL**
4. **AssessmentStatusRequest** → **Calculate Results** → **Complete assessment**
5. **AssessmentStatusRequest** → **View candidate report**
2. Web Service Details

2.1. SOAP Interface

The SOAP interface uses SOAP RPC encoding, with a single remote call: SubmitRequest (username:string, password:string, payload:string):string

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>username</td>
<td>The TAP username of the assessment requester, supplied by Pearson</td>
</tr>
<tr>
<td>password</td>
<td>The TAP password of the assessment requester, supplied by Pearson</td>
</tr>
<tr>
<td>payload</td>
<td>The actual HR-XML request or message</td>
</tr>
</tbody>
</table>

The WSDL locations for the certification and production environments are:

<table>
<thead>
<tr>
<th>Environment</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certification</td>
<td><a href="http://soa.hralloy.com/Harcourt/WebService/service/HarcourtWS.wsdl">http://soa.hralloy.com/Harcourt/WebService/service/HarcourtWS.wsdl</a></td>
</tr>
<tr>
<td>Production</td>
<td><a href="https://login.eassesstalent.com/ws/assessments.wsdl">https://login.eassesstalent.com/ws/assessments.wsdl</a></td>
</tr>
</tbody>
</table>

2.2. HR-XML details

The Talent Assessment Platform (TAP) Web Services interface uses the HR-XML 2.5 specification for the transfer of data. Five document types have been implemented. These are:

- **Input Documents**
  - AssessmentOrderRequest
  - AssessmentStatusRequest
  - AssessmentCancelRequest

- **Output Documents**
  - AssessmentOrderAcknowledgment
  - AssessmentResult

These documents, which are detailed below, will be part of the ‘payload’ field in the SOAP interface.
2.2.1. Assessment Order Request

An assessment is requested by sending the ‘AssessmentOrderRequest’ document to the service. If the candidate is new to the Talent Assessment Platform (TAP) system, a candidate record is automatically created.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Max.Len</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIENTID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ClientId</td>
<td>The unique client ID, assigned by Pearson</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>UserId</td>
<td>The unique user ID, assigned by Pearson</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>PACKAGEID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PackageISBN</td>
<td>The ISBN for the TAP product you wish to order</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>NormId</td>
<td>One or more elements indicating the desired norms</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>CLIENTORDERID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OrderId</td>
<td>Client-defined unique identifier for this order</td>
<td>24 bytes</td>
<td>YES</td>
</tr>
<tr>
<td>ASSESSMENTSUBJECT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBJECTID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CandidateId</td>
<td>Client-defined unique identifier for the candidate</td>
<td>24 bytes</td>
<td>YES</td>
</tr>
<tr>
<td>PERSONNAME</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GivenName</td>
<td>The legal given (first) name of the candidate</td>
<td>30 bytes</td>
<td>YES</td>
</tr>
<tr>
<td>MiddleName</td>
<td>The middle name or initial(s) of the candidate</td>
<td>30 bytes</td>
<td>NO</td>
</tr>
<tr>
<td>FamilyName</td>
<td>The legal last name of the candidate</td>
<td>30 bytes</td>
<td>YES</td>
</tr>
<tr>
<td>CONTACTMETHOD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>InternetEmailAddress</td>
<td>The e-mail address of the candidate; If this element is supplied, an automatic assessment invitation will be sent to the candidate</td>
<td>50 bytes</td>
<td>NO</td>
</tr>
</tbody>
</table>

Assessment Order Request – HR-XML code example:

```
<AssessmentOrderRequest>
    <ClientId idOwner="Harcourt">
        <IdValue name="ClientId">YQDPHSDP</IdValue>
        <IdValue name="UserId">ZYDEHLEO</IdValue>
    </ClientId>
    <PackageId idOwner="Harcourt">
        <IdValue name="PackageISBN">581861262</IdValue>
        <IdValue name="NormId">NNXKWIUA</IdValue>
    </PackageId>
    <ClientOrderId idOwner="YQDPHSDP">
        <IdValue name="OrderId">example_order</IdValue>
    </ClientOrderId>
    <AssessmentSubject>
        <SubjectId idOwner="YQDPHSDP">
            <IdValue name="CandidateId">example_candidate</IdValue>
        </SubjectId>
        <PersonName>
            <GivenName>John</GivenName>
            <MiddleName>J.</MiddleName>
            <FamilyName>Doe</FamilyName>
        </PersonName>
        <ContactMethod>
            <InternetEmailAddress>johndoe@example.com</InternetEmailAddress>
        </ContactMethod>
    </AssessmentSubject>
</AssessmentOrderRequest>
```
2.2.2. Assessment Status Request

An AssessmentStatusRequest is used to query the status of a single assessment order previously submitted to TAP Web Services.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Max.Len</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIENTID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ClientId</td>
<td>The unique client ID, assigned by Pearson</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>UserId</td>
<td>The unique user ID, assigned by Pearson</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>CLIENTORDERID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OrderId</td>
<td>Client-defined unique order ID</td>
<td>24 bytes</td>
<td>YES</td>
</tr>
<tr>
<td>RECEIPTID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ReceiptId</td>
<td>Identifier corresponding to the order, assigned by Pearson on acknowledgement (see AssessmentOrderAcknowledgement)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assessment Status Request - HR-XML code example:

```xml
<AssessmentStatusRequest>
  <ClientId idOwner = "Harcourt">
    <IdValue name = "ClientId">YQDPHSDP</IdValue>
    <IdValue name = "UserId">ZYDEHLEO</IdValue>
  </ClientId>
  <ClientOrderId idOwner = "YQDPHSDP">
    <IdValue name = "OrderId">example_order</IdValue>
  </ClientOrderId>
  <ReceiptId IdOwner = "Harcourt">
    <IdValue name = "ReceiptId">RCRECERD_IEUEIELD</IdValue>
  </ReceiptId>
</AssessmentStatusRequest>
```
2.2.3. Assessment Cancel Request

An AssessmentCancelRequest may be submitted to the TAP Web Service to remove a previously placed order. A cancel request is allowed until the assessment has been started.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Max.Len</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIENTID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ClientId</td>
<td>The unique client ID, assigned by Pearson</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>UserId</td>
<td>The unique user ID, assigned by Pearson</td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>CLIENTORDERID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OrderId</td>
<td>Client-defined unique order ID</td>
<td>24 bytes</td>
<td>YES</td>
</tr>
<tr>
<td>RECEIPTID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ReceiptId</td>
<td>Identifier corresponding to the order, assigned by</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pearson on acknowledgement (see AssessmentOrderAcknowledgement)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Assessment Cancel Request – HR-XML code example:

```xml
<AssessmentCancelRequest>
  <ClientId idOwner="Harcourt">
    <IdValue name="ClientId">YQDPHSDP</IdValue>
    <IdValue name="UserId">ZYDEHLEO</IdValue>
  </ClientId>
  <ClientOrderId idOwner="YQDPHSDP">
    <IdValue name="OrderId">example_order</IdValue>
  </ClientOrderId>
  <ReceiptId idOwner="Harcourt">
    <IdValue name="ReceiptId">RCRECERD_IEUEI_EOP</IdValue>
  </ReceiptId>
</AssessmentCancelRequest>
```
2.2.4. Assessment Order Acknowledgement

An AssessmentOrderAcknowledgement is produced in response to an AssessmentOrderRequest or an AssessmentCancelRequest.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Max.Len</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIENT ID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ClientId</td>
<td>The unique client ID, assigned by Pearson</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>UserId</td>
<td>The unique user ID, assigned by Pearson</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>RECEIPT ID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ReceiptId</td>
<td>The Pearson-assigned ID for the completed order.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CLIENT ORDER ID</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OrderId</td>
<td>Client-defined unique order ID</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ACCESS POINT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Web Address</td>
<td>Link to the assessment URL for the order</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Description</td>
<td>Human-readable description of supplied URL</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ASSESSMENT STATUS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>Order status (‘Acknowledged’, ‘Cancelled’ or ‘Error’)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Details</td>
<td>Description of status code</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Status Date</td>
<td>The date of the last status update</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>USER AREA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Stamp</td>
<td>ISO 8601 timestamp of the acknowledgement</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Assessment Order Acknowledgement – HR-XML code example:

```xml
<AssessmentOrderAcknowledgement>
  <ClientId idOwner="Harcourt">
    <IdValue name="ClientId">YQDPHSDP</IdValue>
    <IdValue name="UserId">ZYDEHLEO</IdValue>
  </ClientId>
  <ReceiptId idOwner="Harcourt">
    <IdValue name="ReceiptId">RCRECERD_IEUEIEOP</IdValue>
  </ReceiptId>
  <ClientOrderId idOwner="YQDPHSDP">
    <IdValue name="OrderId">example_order</IdValue>
  </ClientOrderId>
  <AccessPoint>
    <InternetWebAddress>http://certify.harcourt-test.com/TAP/interface/base.php?l=...</InternetWebAddress>
  </AccessPoint>
  <AssessmentStatus>
    <Status>Acknowledged</Status>
    <Details>Assessment order processed.</Details>
    <StatusDate>2007-10-17</StatusDate>
  </AssessmentStatus>
  <UserArea>
    <hws:Timestamp>1969-12-31T19:00:00-05:00</hws:Timestamp>
  </UserArea>
</AssessmentOrderAcknowledgement>
```
Unsuccessful Cancel Order Request – HR-XML code example:

```
<AssessmentOrderAcknowledgement>
    <ClientId idOwner="Harcourt">
        <IdValue name="ClientId">YQDPHSDP</IdValue>
        <IdValue name="UserId">ZYDEHLEO</IdValue>
    </ClientId>
    <ReceiptId idOwner="Harcourt">
        <IdValue name="ReceiptId">RCRECERCDEUEKD</IdValue>
    </ReceiptId>
    <ClientId idOwner="YQDPHSDP">
        <IdValue name="Order Id">example_order</IdValue>
    </ClientId>
    <AccessPoint />
    <AssessmentStatus>
        <Status>Error</Status>
        <Details>
            It is too late to cancel the assessment at this time.
        </Details>
        <StatusDate>2007-10-17</StatusDate>
    </AssessmentStatus>
    <UserArea>
        <hws:Timestamp>1969-12-31T19:00:00-05:00</hws:Timestamp>
    </UserArea>
</AssessmentOrderAcknowledgement>
```
2.2.5. Assessment Result

The AssessmentResult document is the response format for an AssessmentStatusRequest.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Max.Len</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIENTID</td>
<td>The unique client ID, assigned by Pearson</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ClientId</td>
<td>The unique user ID, assigned by Pearson</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>UserId</td>
<td>Client-defined unique order ID</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ASSESSMENTSTATUS</td>
<td>Assessment status ('Pending', 'In Progress', 'Completed' or 'Error')</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Status</td>
<td>Description of status code</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>StatusDate</td>
<td>The date of the last status update</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>RESULTS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVERALLRESULT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCOREID</td>
<td>The name of the score element</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ScoreId</td>
<td>Description of the score element</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ScoreType</td>
<td>The URL of the candidate report</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Fig.1 is an example of the HR-XML code after a completed assessment:

```xml
<AssessmentResult>
    <ClientId idOwner="Harcourt">
        <IdValue name="ClientId">YQDPHSDP</IdValue>
        <IdValue name="UserId">ZYDEHLEO</IdValue>
    </ClientId>
    <ClientOrderId idOwner="YQDPHSDP">
        <IdValue name="OrderId">example_order</IdValue>
    </ClientOrderId>
    <Results>
        <OverallResult>
            <ScoreId idOwner="Harcourt">
                <IdValue name="name">Assessment URL</IdValue>
            </ScoreId>
            <Description>Candidate Report URL</Description>
            <Score type="x:URL">http://certify.harcourt-test.com/TAP/Report/...</Score>
        </OverallResult>
    </Results>
    <AssessmentStatus>
        <Status>Completed</Status>
        <Details>Assessment complete. Results available.</Details>
        <StatusDate>2007-10-17</StatusDate>
    </AssessmentStatus>
    <UserArea>
        <hws:Timestamp>2007-10-17T19:24:29-04:00</hws:Timestamp>
    </UserArea>
</AssessmentResult>
```
Fig. 2 is an example of the HR-XML code when an assessment is still in progress:

Fig. 2

```xml
<AssessmentResult>
  <ClientId idOwner="Harcourt">
    <IdValue name="ClientId">YQDPHSDP</IdValue>
    <IdValue name="User Id">2YDEHLEO</IdValue>
  </ClientId>
  <ClientId idOwner="YQDPHSDP">
    <IdValue name="OrderId">example_order</IdValue>
  </ClientId>
  <AssessmentStatus>
    <Status>In progress</Status>
    <Details>Assessment in progress.</Details>
    <StatusDate>2007-10-17</StatusDate>
  </AssessmentStatus>
  <UserArea>
    <hws:Timestamp>2007-10-17T19:16:01-04:00</hws:Timestamp>
  </UserArea>
</AssessmentResult>
```

Fig. 3 is an example of the HR-XML code when an unrecognizable orderId has been supplied:

Fig. 3

```xml
<AssessmentResult>
  <ClientId idOwner="Harcourt">
    <IdValue name="ClientId">YQDPHSDP</IdValue>
    <IdValue name="User Id">2YDEHLEO</IdValue>
  </ClientId>
  <ClientId idOwner="YQDPHSDP">
    <IdValue name="OrderId">example_order</IdValue>
  </ClientId>
  <AssessmentStatus>
    <Status>Error</Status>
    <Details>32 - Invalid order ID or receipt/order ID mismatch</Details>
    <StatusDate>2007-10-17</StatusDate>
  </AssessmentStatus>
  <UserArea>
    <hws:Timestamp>2007-10-17T20:15:37-04:00</hws:Timestamp>
  </UserArea>
</AssessmentResult>
```
### 3. Status Codes

#### Status in AssessmentOrderAcknowledgement:

<table>
<thead>
<tr>
<th>Status String</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
<td>An error occurred in processing the request</td>
</tr>
<tr>
<td>Acknowledged</td>
<td>The creation of the order has been acknowledged</td>
</tr>
<tr>
<td>Cancelled</td>
<td>The assessment has successfully been cancelled</td>
</tr>
</tbody>
</table>

#### Status in AssessmentResult:

<table>
<thead>
<tr>
<th>Status String</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
<td>An error occurred in processing the request</td>
</tr>
<tr>
<td>Pending</td>
<td>The candidate has not yet started the assessment</td>
</tr>
<tr>
<td>Email Sent</td>
<td>The candidate opened the assessment-URL sent by e-mail but hasn’t started the assessment yet</td>
</tr>
<tr>
<td>In Progress</td>
<td>The candidate has started, but not completed the assessment</td>
</tr>
<tr>
<td>Completed</td>
<td>The candidate has completed the assessment and results are ready</td>
</tr>
</tbody>
</table>
4. Error Codes

There are 2 levels of error-messages that can be returned from the Web Service: SOAP-faults and HR-XML-faults.

SOAP Faults
A SOAP fault will be returned when an error is raised before processing has advanced to the point where a valid HR-XML response can be produced, i.e., when the HR-XML payload has failed basic field validation, or in the case of an internal server error. This error will be in the <faultstring> element.

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Server Error</td>
</tr>
<tr>
<td>2</td>
<td>Unrecognized document type</td>
</tr>
<tr>
<td>3</td>
<td>User authentication error</td>
</tr>
<tr>
<td>4</td>
<td>Malformed XML document in payload</td>
</tr>
<tr>
<td>20</td>
<td>Missing Client ID</td>
</tr>
<tr>
<td>21</td>
<td>Missing User ID</td>
</tr>
<tr>
<td>22</td>
<td>Missing Candidate ID</td>
</tr>
<tr>
<td>23</td>
<td>Missing Order ID</td>
</tr>
<tr>
<td>24</td>
<td>Missing Package ISBN#</td>
</tr>
<tr>
<td>27</td>
<td>Missing Candidate Given Name</td>
</tr>
<tr>
<td>28</td>
<td>Missing Candidate Family Name</td>
</tr>
<tr>
<td>30</td>
<td>Bad Client ID or client ID mismatch</td>
</tr>
<tr>
<td>31</td>
<td>Bad User ID or User ID mismatch</td>
</tr>
<tr>
<td>32</td>
<td>Invalid Candidate ID</td>
</tr>
<tr>
<td>33</td>
<td>Invalid data in Order ID (too long)</td>
</tr>
<tr>
<td>37</td>
<td>Invalid data for Candidate Given Name (too long)</td>
</tr>
<tr>
<td>38</td>
<td>Invalid data for Candidate Family Name (too long)</td>
</tr>
<tr>
<td>39</td>
<td>Invalid Candidate Email address (too long)</td>
</tr>
<tr>
<td>40</td>
<td>Qualification level is too low</td>
</tr>
<tr>
<td>41</td>
<td>It’s too late to cancel the assessment at this time</td>
</tr>
<tr>
<td>42</td>
<td>Invalid data for Candidate Middle Name (too long)</td>
</tr>
</tbody>
</table>

HR-XML Faults
When a request cannot be processed due to a client error, invalid data in the HR-XML payload or a violation of business rules, the ‘AssessmentStatus’ element of the HR-XML response will have a status of ‘Error’ and the ‘<details>’ element set to the error code + description.

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Norm list required but none given</td>
</tr>
<tr>
<td>26</td>
<td>Missing Receipt ID</td>
</tr>
<tr>
<td>33</td>
<td>Duplicate Order ID</td>
</tr>
<tr>
<td></td>
<td>Invalid order ID or receipt/order ID mismatch</td>
</tr>
<tr>
<td>34</td>
<td>Product has already been ordered for this Candidate</td>
</tr>
<tr>
<td></td>
<td>Invalid Package ISBN#</td>
</tr>
<tr>
<td>35</td>
<td>Invalid Norm ID</td>
</tr>
<tr>
<td>36</td>
<td>Invalid Receipt ID</td>
</tr>
</tbody>
</table>
SOAP Fault Example:

```xml
<SOAP-ENV:Body/>
<SOAP-ENV:Fault/>
<faultcode>SOAP-ENV:Client</faultcode>
<faultstring>23 - Missing order ID</faultstring>
<detail />
<ExceptionId/>
</SOAP-ENV:Fault>
</SOAP-ENV:Envelope>
```

HR-XML Fault Example:

```xml
<SOAP-ENV:Body/>
<SOAP-ENV:SubmitRequestResponse>
<Payload><![CDATA[<?xml version="1.0" encoding="utf-8"?>
<AssessmentResult xmlns="http://ns.hr-xml.org/2007-04-15"
 xmlns:xsd="http://www.w3.org/2001/XMLSchema"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xmlns:dc="http://purl.org/dc/elements/1.1/"
<ClientId idOwner="Harcourt">YQDPHSDP</ClientId>
<ClientId idOwner="Harbour">ZYDEHLEO</ClientId>
<AssessmentStatus>
<Status>Error</Status>
<Details>26 - Missing receipt ID</Details>
<StatusDate>2007-12-04</StatusDate>
</AssessmentStatus>
<UserArea>
<hws:Timestamp>2007-12-04T11:50:37-05:00</hws:Timestamp>
</UserArea>
</AssessmentResult>]]></Payload>
</SOAP-ENV:SubmitRequestResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```
5. **WDSL Service**

```xml
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/
 xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/
 xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<wsdl:message name="SubmitRequestMessage">
<wsdl:part name="UserName" type="xsd:string"/>
<wsdl:part name="Password" type="xsd:string"/>
</wsdl:message>
<wsdl:message name="SubmitRequestFault">
<wsdl:part name="ExceptionId" type="xsd:string"/>
</wsdl:message>
<wsdl:message name="SubmitRequestResult">
<wsdl:part name="WSFault" message="SubmitRequestFault"/>
</wsdl:message>
<wsdl:operation name="SubmitRequest">
<wsdl:output message="SubmitRequestResult"/>
<wsdl:input message="SubmitRequestMessage"/>
<soap:binding style="rpc" transport="http://schemas.xmlsoap.org/soap/http"/>
</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="HarcourtWSBinding" type="HarcourtWSPortType">
<soap:binding style="rpc" transport="http://schemas.xmlsoap.org/soap/http"/>
</wsdl:binding>
</wsdl:portType>
</wsdl:definitions>
```

---

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6. Full SOAP Request Example

```xml
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:soapenv:Body="">
  <soapenv:Header/>
  <soapenv:Body>
    <SubmitRequest>
      <UserName>WSTesUser</UserName>
      <Password>WSTest3825</Password>
      <Payload>
        <![CDATA[
          <AssessmentOrderRequest>
            <ClientId idOwner="Harcourt">
              <IdValue name="ClientId">YQDPHSDP</IdValue>
              <User Id name="User Id">ZYDEHELIO</User Id>
            </ClientId>
            <PackageId idOwner="Harcourt">
              <IdValue name="Package SBN">581861262</IdValue>
              <IdValue name="NormId">NNXWWUA</IdValue>
              <IdValue name="NormId">DXUMAUF</IdValue>
            </PackageId>
            <ClientId idOwner="YQDPHSDP">
              <IdValue name="ClientId">example_order</IdValue>
            </ClientId>
            <AssessmentSubject>
              <SubjectId idOwner="YQDPHSDP">
                <IdValue name="SubjectId">example_candidate</IdValue>
              </SubjectId>
              <PersonName>
                <GivenName>John</GivenName>
                <MiddleName>Lee</MiddleName>
                <FamilyName>Doe</FamilyName>
              </PersonName>
              <ContactMethod>
                <InternetEmailAddress>johndoe@example.com</InternetEmailAddress>
              </ContactMethod>
            </AssessmentSubject>
          </AssessmentOrderRequest>
        ]]>]
      </Payload>
    </SubmitRequest>
  </soapenv:Body>
</soapenv:Envelope>
```