Customising the Participant Interface

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Topics Covered

- Questionmark delivery system architecture
- Demonstration of standard user interfaces
- System defaults
- Changing template settings, text, and style
- Using Tools and Hooks
- Support for mobile delivery
Delivery System Architecture
Three Tiered Architecture

- **Presentation Tier**: Windows or Linux Web Server
- **Business Logic Tier**: Windows Application Server
- **Database Tier**: Microsoft SQL or Oracle

QPLA ➔ QABS
How Assessment Delivery Works

1. QPLA receives HTTP request from browser
2. QPLA sends SOAP request to QABS
3. QABS processes message using repository database
4. QABS sends SOAP reply to QPLA
5. QPLA transforms XML to HTML using XSL
6. QPLA sends HTML to browser
7. Browser renders HTML
   a. Uses CSS & JavaScript files
Information Processing in QPLA

Diagram:
- Xtemplate Text & Settings
- XSLT
- CSS stylesheet
- Browser
- QPLA
- Generate output data
- Input XML
- Output HTML
- Document ID
- Device class
- Language
- QABS

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Demonstration of Standard User Interfaces
Demonstration

- Observe the participant interface in action
  - Login screen
    - Monitor login
  - List screen
    - Language Selection
  - Assessment delivery screens
  - Assessment feedback
- Identify the key user interface controls
  - Navigator
  - Accessibility
- Special Layouts
  - Fixed introduction
  - Side-by-side
  - Highlight and strikethrough
Secure Login (Perception.php)
## Secure Assessment List

<table>
<thead>
<tr>
<th>Start</th>
<th>Resume</th>
<th>Available exams</th>
<th>Attempts remaining</th>
<th>End date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Supply Chain Management</td>
<td>3</td>
<td>Oct 30 2015 11:59:00</td>
</tr>
</tbody>
</table>

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Monitor Login

Please wait for a monitor to enter their name and password before starting.

Participant: 11012013@apm.org
Assessment: Music Trivia

Monitor Name: [ ]
Monitor Password: [ ]

Start  Go Back
Language Selection

Choose one of the following languages:

- English
- French (France)
- Spanish (Spain)

Continue
QxQ Template

Current Date: Dec 20 2009
Current Participant: howard
Progress Bar and Readout: Block 2 of 6, Time remaining: 00:18:48
Timer
Accessibility Controls

2 of 3
Consider a startup business. In what order would the business carry out the following activities?
- Financing
- Returning
- Operating
- Investing

Navigation Buttons: < Previous Question, Next Question, Assessment Navigator
Assessment control buttons
Flag
Manual Save as You Go
Submit
Scrolling Template

Financial Accounting
The Business Cycle

1 of 3
What type of business activity does paying dividends to shareholders represent?
- Operating
- Returning
- Financing
- Investing

2 of 3
What type of activity does purchasing computer and networking equipment represent?
- Financing
- Operating
- Returning
- Investing

3 of 3
Blood is to a human as [ ] is to a business.
Side-by-Side Layout

Useful for questions with graphical exhibits in stimulus.
Fixed Introduction Layout

Ideal for context-dependent item sets. Where multiple questions related to an exhibit are presented.

The sixteenth century was an age of great ___ exploration.

- cosmic
- land
- mental
- common man
- none of the above

In the sixteenth century, an age of great marine and terrestrial exploration, Ferdinand Magellan led the first expedition to sail around the world. As a young Portuguese noble, he served the king of Portugal, but he became involved in the quagmire of political intrigue at court and lost the king’s favor. After he was dismissed from service to the king of Portugal, he offered to serve the future Emperor Charles V of Spain.

A papal decree of 1493 had assigned all land in the New World west of 60 degrees W longitude to Spain and all the land east of that line to Portugal. Magellan offered to prove that the East Indies fell under Spanish authority. On September 20, 1519, Magellan set sail from Spain with five ships. More than a year later, one of these ships was exploring the topography of South America in search of a water route across the continent. This ship sank, but the remaining four ships searched along the southern peninsula of South America. Finally, they found the passage they sought near a latitude of 50 degrees S. Magellan named this passage the Strait of All Saints, but today we know it as the Strait of Magellan.

One ship deserted while in this passage and returned to Spain, so fewer sailors were privileged to gaze at that first panorama of the Pacific Ocean. Those who remained crossed the meridian we now call the International Date Line in the early spring of 1521 after ninety-eight days on the Pacific Ocean. During those long days at sea, many of Magellan’s men died of starvation and disease.

Later Magellan became involved in an insular conflict in the Philippines and was killed in a tribal battle. Only one ship and seventeen sailors under the command of the Basque navigator Elcano survived to complete the westward journey to Spain and thus prove once and for all that the world is round, with no precipice at the edge.
The **Romantic period** is generally considered to have occurred between what years?

- 1400-1530
- 1900-1980
- 1700-1780
- 1790-1880
Assessment Feedback (QxQ)

Financial Accounting

Assessment Feedback

You scored less than 75%. Regretably, that is a failing score.

Please use the diagnostic results below to guide your further study. Additionally, you will find feedback on your mistakes.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Outcome</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Accounting/Business Cycle</td>
<td>Acceptable</td>
<td>Your performance on the questions in this topic is at an acceptable level.</td>
</tr>
<tr>
<td>Financial Accounting/Financial Statement Basics</td>
<td>Unacceptable</td>
<td>Your performance on the questions related to this topic is at an unacceptable level. Please consult the SEC's Beginner's Guide to Financial Statements for further instruction.</td>
</tr>
<tr>
<td>Financial Accounting/Income Statement</td>
<td>Unacceptable</td>
<td>Your performance on the questions related to this topic is at an unacceptable level. Please consult the SEC's Beginner's Guide to Financial Statements for further instruction.</td>
</tr>
<tr>
<td>Financial Accounting/Balance Sheet</td>
<td>Unacceptable</td>
<td>Your performance on the questions related to this topic is at an unacceptable level. Please consult the SEC's Beginner's Guide to Financial Statements for further instruction.</td>
</tr>
<tr>
<td>Financial Accounting/Cash Flow Statement</td>
<td>Unacceptable</td>
<td>Your performance on the questions related to this topic is at an unacceptable level. Please consult the SEC's Beginner's Guide to Financial Statements for further instruction.</td>
</tr>
</tbody>
</table>

Next Question >  Assessment Navigator

Close
The cash flow statement can be derived from information found on the income statement and the balance sheet.

- True
- False

0 out of 1

Sorry, that is incorrect. In order to derive the cash flow statement, you would need information that is typically reported on the income statement and other information that is typically reported on the balance sheet.
Available Templates

- QxQ (Question-by-Question; one question per page)
  - 18 styles available
  - 3 basic layouts
    - Vertical left
    - Vertical right
    - Horizontal
- Scrolling (multiple question per page)
  - 15 styles available
- Screenshots available at:
  - See “Available Templates” section
System Defaults
What are xTemplates?

- xTemplates are a replacement for the version 4 templates and format files
- xTemplates are XML files with a .xtmp extension
- xTemplates control the layout, style, and behavior of the participant interface
- xTemplates utilize standard Web technology:
  - XML
  - Style language (CSS, inline styles)
  - XSL
xTemplates: System Default Files

- 3 files contain the system defaults:
  - qmDefaultSettings.xtmp (roughly v4 settings.format)
  - qmDefaultText.xtmp (roughly v4 text.format)
  - qmDefaultOutput.xtmp

- 1 Master style sheet
  - QPLA.css

- These are equivalent to V4’s .format files, where the system default values were kept
- These files contain the default values that specify how each category of user interface (screen) is rendered

We do not recommend modifying the “factory” system default .xtmp files.

To customize the interface you should modify the repository templates:
- Any of the available assessment templates
- qmDefaultTemplate.xtmp
- Create a custom style sheet based on master or overwrite styles within a template

qmDefaultTemplate.xtmp is where you make changes that are repository-wide:
- E.g. branding
Template Processing

“Factory” System Defaults

qmDefaultOutput.xtmp
qmDefaultSettings.xtmp
qmDefaultText.xtmp
QPLA.css

Repository-wide Defaults

qmDefaultTemplate.xtmp
qmDefaultTemplatePod.xtmp

Assessment-Specific

default.xtmp
qxqon.xtmp
MyTemplate.xtmp

• Repository-wide defaults to precedent over “Factory” Defaults.
• Assessment-Specific settings take precedent over Repository-wide defaults

Participant Browser

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File Locations

![Diagram showing file locations including QPLA.css, qmDefaultSettings.xtmp, qmDefaultText.xtmp, qmDefaultOutput.xmtp, qmDefaultTemplate.xtmp, XSL files, and Other assessment templates.]
XSL Files

- The XSL files transform the XML that QABS sends to QPLA into HTML
- qmDefaultOutput.xtmp defines which UI’s (screens) use which XSL transformations for a class of device
- It is possible, to customize the XSL files, but not recommended
If you do customize XSL

- Always make a copy of the system XSL files and rename for use
  - “body” XSL
  - “include” XSL
- Put your code change into the XSL file that is included by the “body” XSL file
- Reference the custom “body” XSL in your template `<outputList><output>` element

xTemplates: Structure

[Diagram of xTemplate structure with nodes for version, description, status, author, createdDate, comments, metadata, text, entry, settings, description, value, outputList. Note: "Multiple values allowed."
<?xml version="1.0" encoding="UTF-8"?>

<Template>
  <metadata>
    <version major="1" minor="0"/>
    <description xml:lang="en-US">Standard default survey example assessment template</description>
    <author>Questionmark</author>
    <createdDate>2007-08-06T10:37</createdDate>
    <comments>
      <comment author='Questionmark' date='2007-08-06T10:37' xml:lang="en-US">Equivalent to V4 example survey.template</comment>
    </comments>
  </metadata>
  <devices>
    <alternate>
      <class id='ipad'>default.xtmp</class>
    </alternate>
  </devices>
  <settings>
    <entry id='USE_QX' type='boolean' category='delivery'>
      <value>true</value>
      <description xml:lang='en-US'>Turn off / on the question by question delivery</description>
    </entry>
    <entry id='STYLE' type='text' category='default'>
      <value>
        body { background-color: #ffffff; margin-bottom:0; margin-left: 0; margin-top:0; font-size: 8pt; font-family: Arial; }
        .qm_QUESTION .qm_QUESTION_FEEDBACK { background-color: #F3F4FB; }
        .qm_QUESTION .qm_QA_CONTENT { background-color: #F3F4FB; padding-left:4px; }
        .qm_QUESTION .qm_HTML_CONTENT { padding:2px; padding-left:4px; }
        .qm_NUMBER { font-family: arial, verdana, tahoma; font-size: 9pt; font-weight: bold; color: #769BDD; position:relative; left: -5px;text-decoration:underline; }
        .qm_HTML_CONTENT { padding-top:10px; }
        .qm_SEPARATOR {border-top: 0px;}
        .qm_TITLE {border-bottom:0px;}
        .qm_FINAL_SCORE { font-family:arial, verdana, tahoma; font-size:10pt; font-weight:bold; color: #769BDD; border:0px; background-color: #F3F4FB; }
        .qm_ANSWERED, .qm_NOT_ANSWERED { color:#769BDD; background-color: #F3F4FB; font-size:10pt; text-decoration:underline; padding-left:10px; }
        .qm_QUESTION_FEEDBACK { padding-left:0px; }
      </value>
    </entry>
  </settings>
</Template>
Changing style, text, and settings
Customizing Style - Before
Customizing Style - After
Style Setting – Inline Style

- Master CSS is QPLA.css
- Allows you to control look and feel and position of interface elements with CSS rules
- Can insert the rules in-line in the template

```xml
<entry id="STYLE" type="text" category="default">
    <value>
        .qm_BANNER {background: none; padding: 5px 5px 5px 5px; }
        .qm_CONTROL {background: none; border-style: none; padding: 6px 0px 2px 7px; height: 24px;}
        .qm_WELCOME {padding: 4px 7px 4px 7px; background: none; border-bottom: 1px solid #FFFFFF; overflow: hidden; width: auto;}
        .qm_NORMAL_CONTAINER { width:95%; margin-left:10px; margin-top:10px; padding:15px;}
    </value>
</entry>
```
## External Style

- Can also call a custom, external CSS

```html
<outputList>
  <output id="default">
    <stylesheet>HE_custom.css</stylesheet>
  </output>
</outputList>
```

<table>
<thead>
<tr>
<th>Method</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inline</td>
<td>Allows the code to remain close to the content and can overwrite any other CSS, even those coming from an external CSS file</td>
<td>The styling can only be applied on a per template basis and updates to the template could cause CSS to be overwritten.</td>
</tr>
<tr>
<td>External</td>
<td>Separates the styling from the other settings making it easier to apply to several templates.</td>
<td>Can cause all templates that use it to display differently if anyone makes any un-authorized changes.</td>
</tr>
</tbody>
</table>
Customizing Style – IDs and Classes
Customizing Text

- Default text labels for UI are found in qmDefaultText.xtmp
- Each ID has a description to help you determine which ID you are targeting in the interface
Before

Participant Login
Please enter your name and password below
Name: 
Password: 

After

Login
Please enter your Network ID and password below
Network ID: 
Password: [Enter]
Demonstration – Controlling Delivery Behavior

- Using a scrolling template, prevent a participant from submitting the assessment until all questions are answered.

```xml
<entry id="ASK_CONFIRM" type="integer" category="question">
  <value>3</value>
  <description xml:lang="en-US">Ask for confirmation before submitting answers.
  0 - don't ask before submitting
  1 - ask if any questions remain unanswered
  2 - ask always
  3 - prevent submitting if any questions remain unanswered
</description>
</entry>
```
Controlling the Home Button

- Slightly different than in v4
- Can have different actions for Open.php than for Perception.php
  - HOME_BUTTON_OPEN_ACTION
  - HOME/Button_SECURE_ACTION
    - 0 - return to the assessment list page or other entry point
    - 1 - close the browser window or (This will only have an effect if the window or tab was opened by JavaScript in the first place)
    - 2 - branch to the URL defined in HOME_BUTTON_URL. This will cause the participant to be navigated to a specific URL
    - 3 - do not display a Home button
- HOME_BUTTON_URL
Home Button Settings

<entry id="HOME_BUTTON_SECURE_ACTION" type="integer" category="end">
  <value>0</value>
  <description xml:lang="en-US">The action of the Home button at the end of an assessment if the assessment is launched from a secure context.
0 - return to the assessment list page or other entry point
1 - close the browser window or (will only have an effect if the window or tab was opened by Javascript in the first place)
2 - branch to the URL defined in HOME_BUTTON_URL
3 - do not display a Home button
</description>
</entry>

<entry id="HOME_BUTTON_OPEN_ACTION" type="integer" category="end">
  <value>3</value>
  <description xml:lang="en-US">The action of the Home button at the end of an assessment if the assessment is launched from an open context.
0 - return to the intial entry point (e.g. the assessment list page)
1 - close the browser window or (will only have an effect if the window or tab was opened by Javascript in the first place)
2 - branch to the URL defined in HOME_BUTTON_URL
3 - do not display a Home button
</description>
</entry>
Home Button Behavior When Launching Via PIP

- PIP is for integrations
  - Used for AICC and SCORM integrations

- There are PIP Settings that will control the behavior of the Home button

- Typically customers want to close the window containing the assessment:
  - [Settings]
    - USEHOME=1
    - CLOSEHOME=1
Using Tools and Hooks
Adding tools to a template

- External tools can be added to templates
- Tools can be used by participants when answering questions in an assessment
- Examples
  - Calculator
  - Periodic Table
Demonstration – Adding a tool

- Tools can be added to the template
  - Docs or 3rd party apps used by the participant to answer questions
  - E.g. calculator, periodic table, multimedia reference

```xml
<tools>
  <entry id="PERIODIC_TABLE" type="tool" category="delivery">
    <description xml:lang="en-US">Periodic table</description>
    <value xml:lang="en-US">Periodic Table</value>
    <value xml:lang="xx">Periodic Table</value>
    <url>http://www.dayah.com/periodic/</url>
    <window>height=150,width=180,toolbar=0,location=0,directories=0,menubar=0,Resizable=1</window>
  </entry>
</tools>
```
Hooks

- Hooks allow you to easily add HTML to certain elements on the various screens
  - E.g. Add a terms and conditions statement to the login screen
- Add the hooks to the `<settings>` section of the xtmp
Available Hooks

- HOOK_BANNER
- HOOK_HEADER
- HOOK_CONTROL
- HOOK-footer
- HOOK_SCRIPT
- HOOK_QUESTION_START
- HOOK_QUESTION_END
- HOOK_FEEDBACK_STARTHOOK_FEEDBACK_END
- HOOK_ASSESSMENT_FEEDBACK_START
- HOOK_ASSESSMENT_FEEDBACK_END
- HOOK_NAVIGATOR
- HOOK_BOX_HEADER
- HOOK_BOX_FOOTER
- HOOK_BOX_START
- HOOK_BOX_END
Hooks

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Hooks

Customize Participant Interface Demo

Exam instructions go here.
Mobile Delivery
Supporting Mobile Delivery

- Uses an alternate template as specified in the `<Devices>` element of the xTemplate

```xml
<devices>
    <alternate>
        <class id="mobile">qxqon.xtmp</class>
    </alternate>
</devices>
```

- V5.6 changes
  - New device class “mobile” replaces “ipod” and uses a different set of XSL files
  - Use of jQuery mobile for style sheet

<table>
<thead>
<tr>
<th>Type of Template</th>
<th>Default template for settings</th>
<th>CSS for style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrolling</td>
<td>qmDefaultTemplate.xtmp</td>
<td>Mobile_theme.css</td>
</tr>
<tr>
<td>QxQ</td>
<td>qxqon.xtmp</td>
<td>Mobile_theme.css</td>
</tr>
</tbody>
</table>
Before style change

Use jQuery Mobile to define new style

After style change
# Template Reference Guide


## Contents

- Welcome
  - Introduction
  - Available templates
  - Upgrading templates
  - Working with templates
  - Customizing templates
  - Text settings
  - Display settings
  - Appendix

## Questionmark Perception Version 5

#### Templates Reference Guide

This guide shows you how to use Perception Version 5 templates to present your assessments in the way you want them to be presented. It provides instructions on how and when to use different templates with your assessments, how to create new templates, and how to customize each of the screens displayed by Perception to present assessments. Instructions on how to upgrade Perception Version 4 templates to Version 5 are also provided.

This guide is divided into:

- Introduction
- Available templates
- Upgrading templates
- Working with templates
- Customizing templates to meet your needs
- Text settings
Thanks for you attention

- Questions?