HP Adoption Readiness Tool (ART)
Technical Specifications 5.1

This document includes HP ART 5.1 information and specifications on the following topics:

- Languages Supported

- Author/Administrator Workstation Environments

- End User Workstation Environments

- HP ART Content Deployment Information

- HP ART Web Server Requirements

- Using HP ART Content with an LMS

Languages Supported

The HP Adoption Readiness Tool interface supports the following languages: Bulgarian, Catalan, Chinese (PRC), Chinese (Taiwan), Croatian, Czech, Danish, Dutch (Belgium), Dutch (Netherlands), English (US), English (UK), Finnish, French (Canada), French (France), German, Greek, Hungarian, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese (Brazil), Portuguese (Portugal), Romanian, Russian, Spanish, Swedish, Thai, and Turkish.

The HP Adoption Readiness Tool published content also supports the Arabic language.

Workstation and Server Environments

Author/Administrator Workstation

The HP Adoption Readiness Tool (ART) install requires administrative permissions on the local machine. ART requires the Microsoft .NET framework. The installer is only available in English (US).

Author or administrator workstations support the generation of content using the HP Adoption Readiness Tool. The following requirements are based on tested configurations with all software installed locally:

- 1.5 GHz processor or higher

- 1 GB RAM minimum; 2 GB RAM recommended

- 8 MB Video card with 16 million colors at 1024 x 768 resolution

- 250 MB free disk space. Additional disk space required for application logs and content created.

- Microsoft Windows XP Professional SP3 (32-bit),Windows 7 SP1 (32-bit and 64-bit) Professional or Enterprise, or Windows 8 (Desktop mode)

- Support for United States Government Configuration Baseline (USGCB) v1.2 of Microsoft Windows 7 (32- and 64-bit)

- Microsoft .NET Framework v4.0

- Visual J# Redistributable Package v2.0

- Microsoft Visual C++ Redistributable Package v10.0.40219.1

- Java Access Bridge for Windows 2.0.2 or higher for Java Runtime Environments 1.5 and later [1].

- Microsoft Windows Automation API 3.0

- Connection to a printer with the proper print driver installed

- Microsoft Internet Explorer 7 - 10; Mozilla Firefox 17 – 21, or Google Chrome 27. Internet Explorer 7 is not supported when viewing published content in Arabic. Recording of browser-based applications requires Microsoft Internet Explorer 7 - 10.

- Adobe Acrobat Reader 10.x or XI to view PDF output

- Adobe Flash Player 11.x to play audio files in the editor. See End User Workstation section for Flash requirements to listen to audio in published courses or simulation output. To view output locally (versus via a standard web server deployment), Flash Global Security Settings must be set to "Always allow" to view output locally.

- Microsoft Office 2007 SP3, 2010 SP1, or 2013 to view Microsoft Office output and to import Microsoft Office PowerPoint content into eLearning courses.

- Authors using roaming profiles should have at least 250 MB allocated to their roaming profile.

- Microphone to record audio within editor. By default, audio files are encoded as WAV files. If the LAME encoder is installed, audio files are encoded as MP3 files.

- Microsoft server speech voices v10 or v11, or other 32-bit SAPI5 compliant voice(s) installed if publishing files that use text-to-speech functionality

Recording Environments

HP Adoption Readiness Tool can record and document virtually any 32-bit and most 64-bit Microsoft Windows or web-based applications, provided that the Windows or web-based application has been developed using Windows accessibility standards.

Author Citrix Usage

Authors can use the HP Adoption Readiness Tool from a 32-bit or 64-bit Terminal Server to support the generation of content. HP Adoption Readiness Tool has been tested against Windows Terminal Services 2008 and Citrix XenApp™ v4.5. Newer versions of Citrix will be supported although they have not been tested. HP Adoption Readiness Tool does not support application publishing, remote applications, or web gateways from a Terminal Server. The Citrix server technical specifications will vary depending on other applications in use on the Citrix server, as well as the number of planned concurrent authors

Note: Because the ART recording tool uses object recognition, you must have the ART DevKit installed on the same server as the software that is being recorded. In this scenario, you must have a local copy of the ART DevKit on your laptop for ART course development and another copy on the remote machine for recording your simulations.

End User Workstation

End user workstations support viewing of content generated by HP Adoption Readiness Tool. The following requirements are based on tested configurations with all software installed locally:

- 1.0 GHz processor or higher

- 512 MB RAM or higher

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[1] Java Access Bridge is only necessary for recording Java-based applications.

- 2 MB Video card with 16 million colors at 1024 x 768 resolution

- Microsoft Windows® XP Professional SP3, Windows 7 SP1(32-bit and 64-bit) Professional or Enterprise, or Windows 8 (Desktop mode)

- Support United States Government Configuration Baseline (USGCB) Major version 1.2 of Microsoft Windows XP Professional SP2/SP3 or Vista Business SP1

- Support for United States Government Configuration Baseline (USGCB) v2.0 of Microsoft Windows 7 (32- and 64-bit)

- Microsoft Internet Explorer® 7 - 10; Mozilla Firefox® 17 - 21; Google Chrome 27; or Safari 5.0 to view HTML output. Internet Explorer 7 is not supported when viewing published content in Arabic.

- Microsoft Office® 2007 SP3, 2010 SP1, or 2013 to view Microsoft Office output

- Adobe® Acrobat® Reader 10.x or XI to view PDF output

- Adobe® Flash® Player 11.x to communicate with an LMS using the AICC communication standard.

- Adobe® Flash® is required to listen to WAV audio files in published courses or simulations in all supported browsers. Flash is required to listen to MP3 audio files in Internet Explorer 7.0 and 8.0 or Firefox. Flash or QuickTime 7.x is required to listen to audio in Safari 5.0.

- Apple iPad running iOS 5.0 or higher.

- JAWS® for Windows screen reader software, versions 12 -14

Simulation and Course Playback

For optimum performance, viewing published simulations or courses over a modem connection (56K) is not recommended.

HP ART Content Deployment Information

Understanding the Difference between HP ART Source Files and Published Content

HP ART source files have a .udc (document /recording), .ulc (course) or .uws (website) file extension. They are provided by HP or created by a content author. These files can only be opened/viewed in the HP ART tool. These source files are utilized only by Authors or Administrators and do not need to be stored in an accessible location to end users.

HP ART published content consists of HTML, Microsoft Word, and PDF files and is intended to be accessed/viewed by end users.

HP ART Source File and Published Content Sizes

HP ART source UDC and ULC files are approximately 100Kbytes per step/page. The size of each of the published files is approximately the same as the corresponding source document for each format.

An HP ART UWS file is small (typically under 5MB) as it only contains links to other files. It can contain up to 1000 links to website pages and other files. A published website is about 50Kb for each link or page. This is in addition to the published content (HTML, Word and PDF files) mentioned above.

An HP ART Glossary source (UPG file) is typically under 5MB and may contain a maximum of 2500 terms, with each term having a single definition. The published output can link to the website and is typically under 5MB.

Example – Website with 1000 HP ART UDC Files

If a site consisted of 1,000 recorded ART documents containing 25 steps each, the Author would require approximately 2.5 GB of disk space for the source files. These files do not need to be made available to end users.

Assuming three output types are selected for each source file, the published output would require approximately another 7.5 GB.

A published website is about 50Kb for each link or page, so 1000 links and/or pages would require approximately 50Mb of additional disk space.
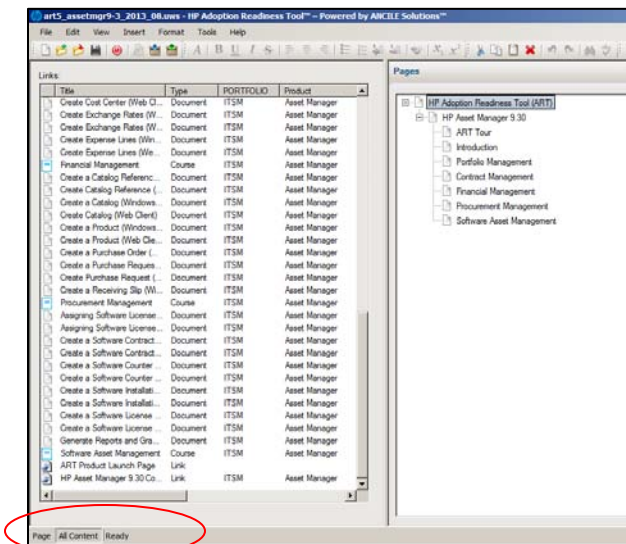
Example – HP ART Asset Manager Content

The HP prebuilt Asset Manager website (UWS) file contains a total of 49 pages/links, out of a total allowance of 1000 pages/links (see screenshot above).

The zip file which contains ART Asset Manager Content is just under 1 GB. Unzipped, this holds the source files (UDC, ULC and UWS), which is 430MB, the published output files, which is 650MB, and the website template which is 25 KB.

The source content (430MB) is comprised of multiple pieces, including ULCs which are course module files and UDCs which are recorded simulation files. Size is based on length of course or the length of the simulation. An example of a course module in Asset Manager is the Financial Management course file (87MB). Within that course are multiple recorded simulation files such as Create Exchange Rates (1.3 MB)

The published output files (650 MB) will be deployed to end users. These files include HTML and PDF files.

HP ART Web Server Requirements

HP ART published content is typically hosted on a web server to deploy to end users. The HP ART website structure and content may be placed on any server that supports static content delivery inside or outside (managed hosting) of a company network.

The server needed is platform (Windows/Linux/etc.) and web server (Apache/IIS/etc.) independent. At a minimum, it is recommended to have the equivalent of two Dual Core 1.86 GHz or higher processors with 2 GB of RAM. Additionally, it is recommended that there is enough hard disk space available to support the above published content requirements, OS requirements, application requirements, and growth.

Simulations and courses utilize HTML5, eliminating the need to have any streaming software support and minimizes constant network load. Network and bandwidth requirements are reflective on the number of concurrent users and the size of the published content. There is no specified bandwidth requirement; however increased bandwidth can result in decreased load times.

Examples:

- 5 concurrent users accessing 10MB of published content over a 1.5Mbps connection would take roughly 4 minutes and 26 seconds.

- 5 concurrent users accessing 10MB of published content over a 10Mbps connection would take roughly 40 seconds.
  Note: When calculating user concurrency it is important to note that users only access the web server during the loading of content.

Using HP ART Content with an LMS

HP ART courses and simulations can be published to a packaged zip file that may be imported directly into any Learning Management System (LMS) that conforms to AICC 2.2, SCORM 1.2, or SCORM 2004 to facilitate training.

AICC 2.2 conformant HP ART courses and simulations may be hosted on a web server as noted above and linked to from a Learning Management System (LMS) directly.

HP Adoption Readiness Tool simulations and courses support the following SCORM and AICC elements:

SCORM 1.2	SCORM 2004	AICC
Lesson Status (cmi.core.lesson_status) Lesson Location (cmi.core.lesson_location) Suspend Data (cmi.suspend_data) Raw Score (cmi.core.score.raw) Min Score (cmi.core.score.min) Max Score (cmi.core.score.max) Session Time (cmi.core.session_time) Progress (rwd.progress_measure) Completion threshold (rwd.completion_threshold) Simulation Mode (rwd.sim_mode) Interactions (cmi.interactions) • Interaction ID (cmi.interactions.n.id) • Interaction Time (cmi.interactions.n.time) • Interaction Type (cmi.interactions.n.type) • Interaction Correct Response (cmi.interactions.n.correct_responses.n.pattern) • Interaction Student Response (cmi.interactions.n.student_response) • Interaction Result (cmi.interactions.n.result) • Interaction Description (rwd.interactions.n.description)	Completion Status (cmi.completion_status) Success Status (cmi.success_status) Lesson Location (cmi.location) Suspend Data (cmi.suspend_data) Raw Score (cmi.score.raw) Min Score (cmi.score.min) Max Score (cmi.score.max) Scaled Score (cmi.score.scaled) Session Time (cmi.session_time) Interactions (cmi.interactions) • Interaction ID (cmi.interactions.n.id) • Interaction Type (cmi.interactions.n.type) • Interaction Correct Response (cmi.interactions.n.correct_responses.n.pattern) • Interaction Student Response (cmi.interactions.n.student_response) • Interaction Result (cmi.interactions.n.result) • Interaction Description (cmi.interactions.n.description)	Lesson Location (Core.Lesson_Status) Lesson Status (Core.Lesson_Location) Suspend Data (Core_Lesson) Raw Score (Core.Score) Session Time (Core.Time)

For more information on deploying HP ART Content via an LMS, please refer to the *SCORM and AICC Support in HP Adoption Readiness Tool* document that can be obtained from your HP Software representative.

Collecting Simulation and Course Assessment Data without an LMS

To implement simulation and course assessment tracking in a non-SCORM environment, use server-side software (Active Server Pages, Hypertext Preprocessor [PHP], or CGI) to handle data provided by the simulations and courses. HP Adoption Readiness Tool simulations and courses provide data via a POST command, and provide user name, simulation title, total number of questions, total number correct, questions incorrectly answered, and pass/fail to the server script.