

App Center – QA Test Plan

App Center Release Date on August 9, 2012

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# About This Document

## Target Audience

This Test Plan Document is intended to provide QA related information to cross-functional team members involved with the App Center Project. This includes but is not limited to:

* Producers
* Development
* Software Quality Assurance Team
* Engineering
* Offshore Team Members

## Document Purpose

This Test Plan document intends to

* Provide an overview of the QA Testing Strategy and approach for testing QA will use to validate the quality of the App Center project prior to release. Release is currently scheduled on August 9, 2012.
* Outline types of testing planned and the key functionalities to be tested for the App Center system, based on the functional specification document.
* Contain relevant information and resources required for the successful completion of this project
* Serve as a starting point reference for future QA members joining this project for subsequent App Center releases
* Itemize out-of-scope areas, which QA will not intend to test.

This document does not

* Include detailed Test Cases (TCs). TCs will be created in a separate TC Document
* Cover testing of platform’s firmware / titles / apps / or “content” testing. That will be executed by respective Content teams.
* This document does not cover the LeapPad (Madrid) product specific feature testing. There will be a separate Madrid product device level test plan and set of test cases, and executed by respective LeapPad QA team.
* Cover the additional features planned for future releases beyond August 9th release date.

## Related Documents

The following artifacts provided key details for this test plan

|  |  |  |
| --- | --- | --- |
| **Document Title** | **Author** | **Location** |
| AppCenter Functional Spec for Leapster Explorer and LeapPad Explorer (Ver 1.0) | Kellie Cox  Vickie Liang | [publishing.leapfrog.com](http://publishing.leapfrog.com/audiotools/files.asp?fold=) » [audiotools](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/) » [projects](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/) » [upc](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/upc/) » [App Store](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/upc/App%20Store/) » [Published Sets](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/upc/App%20Store/Published%20Sets/) |
| UPC\_Shell\_2011\_Landing Pages – (Ver 1.4 ) | Dan Sorge | [publishing.leapfrog.com](http://publishing.leapfrog.com/audiotools/files.asp?fold=) » [audiotools](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/) » [projects](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/) » [UPC](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/UPC/) » [Shell 2011](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/UPC/Shell%202011/) » [Release 11.5](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/UPC/Shell%202011/Release%2011.5/) » [Published Sets](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/UPC/Shell%202011/Release%2011.5/Published%20Sets/) » [Set](http://publishing.leapfrog.com/audiotools/files.asp?fold=audiotools/projects/UPC/Shell%202011/Release%2011.5/Published%20Sets/Set%201.5/) 1.6 |
| *Download Store Outlying System Design* | Yuga Gandikota | \\emfile08\Emeryville Programming\AppStore\Architecture Docs |
| Daily Standup Meeting Notes | App Center Project Team | [\\emfile08\Emeryville](file:///\\emfile08\Emeryville) Programming\AppStore\DAILY STANDUPS |

## Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description of Revision** | **Author** |
| 5/3/2011 | 0.1 | Created Document with initial content. | Alan Abar |
| 5/5/2011 | 0.2 | Added various sections to document | Alan Abar |
| 5/9/2011 | 0.3 | Continued adding testing in-scope details.  Added additional sections to Test Plan | Alan Abar |
| 5/15/2011 | 0.4 | Added more functional test specs | Alan Abar |
| 5/16/2011 | 0.5 | Continued to complete functional testing details | Alan Abar |
| 5/17/2011 | 0.6 | Updated various sections based on updates of App Center Specs | Alan Abar |

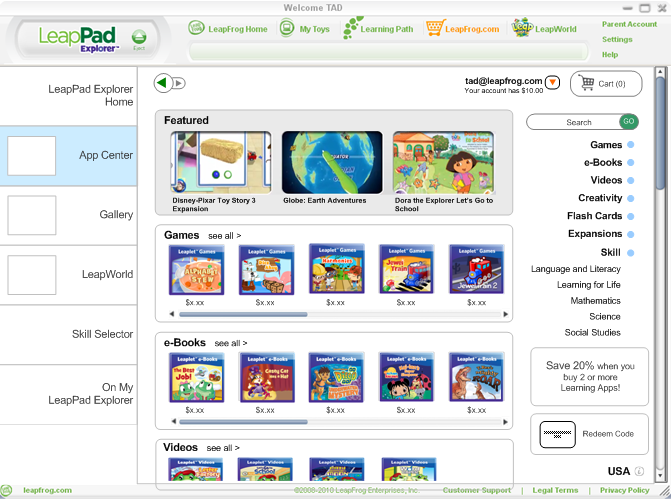
# Project Overview

The App Center will be the digital store front for both Leapster Explorer and LeapPad Explorer customers. Customers will be able to purchase digital content such as Games, E-Books, Videos, Flash Cards, and more for these two specific devices.

Through the App Center, customers will be able to download free apps, redeem various codes to download apps, as well as purchase content through the use of credit card payments.

The App Center store front will be made available for different locales, including United States, Canada, United Kingdom, Ireland, Australia and New Zealand.

Below is sample snapshot of the App Center store front, which shows Featured content, Games, e-Books, Videos, and more. The App Center will be accessible through the LeapFrog Connect application, via the respective LeapPad or Leapster Explorer plugin.

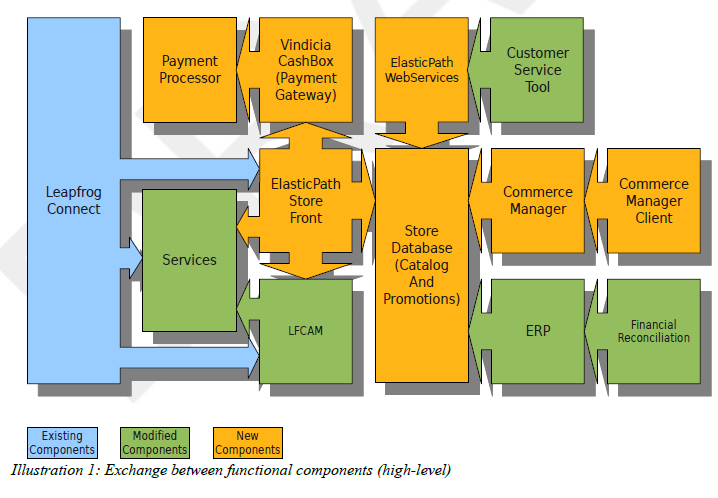


**Fig 1 – Sample snapshot of App Center in the LeapPad Explorer**

# App Center Overview

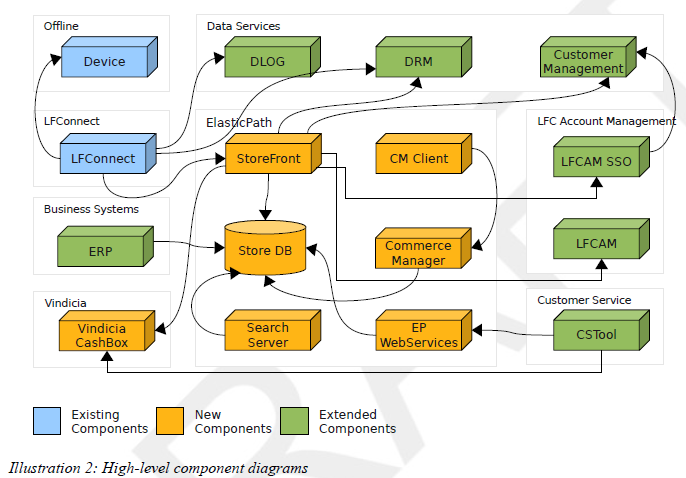
This section provides a high level overview of the AppCenter, as extracted from the “Download Store Outlying System Design” as a point of reference for QA team.

# Functional Components



|  |  |
| --- | --- |
| **Major Component** | **Description** |
| LeapFrog Connect (LFC) | LeapFrog’s application interface used to connect to leapfrog devices, to access various features such Learning Path, LeapFrog.com, LeapWorld, Device Features, and the new App Center. Users will access the New App Center through LFC installed on their local machine, specifically for the Leapster Explorer and LeapPad Explorer. |
| Elastic Path - Store Front (SF) | Elastic Path (EP) is a 3rd party vendor, whose Java based e-commerce framework will be used to implement the AppCenter storefront. EP provides an administrative interface to manage catalogs and promotions. |
| Elastic Path - Commerce Manager & Client (CM) | Elastic Path’s Commerce Manager Client is the user interface to manage all the catalog and promotions information, which will be stored in the Store Database, through Commerce Manager Server. Initial Catalog and promotions details will be maintained in an excel document and imported via CSV. |
| Elastic Path - WebServices (WS) | Elastic Path’s web services which will provide various services and information, to the Customer Service Tool. |
| Elastic Path - Search Server (SS) | Elastic Path’s search server, to provide searching capabilities. |
| Store Database | The App Center store will store and retrieve all the Catalog and Promotions related data to/from the Store Database. This database also contains information about all the orders placed by the customer. |
| Vindicia Cashbox | 3rd party vendor that will act as the Payment gateway, responsible for payment processing and all credit card related transactions. Details like account balance and customer’s credit card infor are actually stored on Vindicia’s Cashbox server. |
| LFCAM | LeapFrog Connect Account Manager, used for SSO. |
| ERP & Customer Service Tool | Order Related data will be used by ERP and Customer Service Tool |
| Inmon | Store Front servers uses Inmon services for PIN related functionality and DRM (Digital Rights Management) |

# High Level Component Diagram



# Types of Testing

This section provides a high level overview of the types of testing QA team will plan to execute for this App Center Project. This includes both in-scope and limited-scope, due to priorities or current limitations.

# In Scope

### Functional Testing

Black box testing, concrete box or functional testing is used to check that the outputs of a program, given certain inputs, conform to the functional specification of the program. QA will focus on testing all key functionalities as defined in the App Center Specification document.

These functional specifications have been itemized in this Test Plan Document, as part of Section 9 - “Functional Testing in Detail”. Functional testing will focus on various functions of the App Center.

### Integration (of key components and 3rd party vendors)

Integration testing involves verifying the behavior of system components with each other, particularly upon availability to QA. Parts of the system are made available for testing in phases or incrementally, until all components are fully integrated to complete the entire system. Integration testing will focus on the incremental functionality and components made available upon development completion and deployment to the test environment.

A high area of importance for integration testing will focus on integration to 3rd party vendors such as Vindicia or Elastic Path, through specific integration related test cases.

### System Testing

System testing of software or hardware is testing conducted on a complete, integrated system to evaluate the system's compliance with its specified requirements. Goal is to verify and validate behaviors of the entire system against the original system objectives. QA will attempt to identify the correctness, completeness, and quality of the overall software system, as per project requirements.

### End to End Testing

End to End Testing involves testing the system from by completing key business processes from beginning to end perspective. For this project, this may include testing of the “Out of the Box Experience” with new user account creation, searching orders, adding items to cart, check out process, billing verification, email notification, as well as various flows for existing customers with devices.

### Operating System Compatibility Testing

Testing to ensure compatibility of an application with the various Operating Systems supported. QA will focus testing on a priority of Operating Systems.

### Regression Testing

App Center will be implemented with the LF Connect Application. LF Connect and all the major functionality should be regressed as part of this overall release, particularly the areas where components of existing systems were impacted.

# Limited Scope

For this phase of the project, QA Team current does not plan to perform, or will do limited testing of:

### Unit Testing

We will not perform any unit level tests, and will assume development performed the necessary unit level testing for various components of this system.

### White Box Testing

White Box Testing is based on an analysis of internal workings and structure of a piece of software, as opposed to its functionality. This can include techniques such as Control Flow, Data Flow, Branch Testing and Path Testing. This requires a deeper view into the code level of this system. Due to time constraints and current resource capabilities, this will not be a focus for this initial phase of App Center project.

### Gray Box Testing

QA Team will attempt to perform Gray Box level testing, which is a combination of black and white box testing. QA will attempt to gain more visibility into the internals of the system, to ensure proper functional coverage as much as possible. This will include gaining a deeper understanding of the system, components, and underlying technologies. Techniques will include various database checks for data integrity and correctness, data validation, and continued development of test case scenarios based on code and internal logic where possible. Gray box level test cases based on deeper understanding of internal and backend components will continue to be developed through the project as QA team’s knowledge increases.

### Performance Testing

Current State of Performance Capabilities–

* Currently no predefined performance requirements for specific business processes for App Center Project
* Currently no performance tools w/in QA. Open Source tools such as Jmeter, SoapUI, etc, will need to be evaluated as possible performance tools
* Currently no dedicated performance engineers/team currently in place
* Currently no dedicated or identified performance environment

QA will plan to do limited and focused performance testing, that may include activities such as:

* identifying key business processes to measure performance
* capturing benchmarks on such key processes
* applying LOAD to the system for short duration of time
* applying STRESS to the system to observe behavior

Performance testing is typically applied once the system has gone through proven functionality and overall system stability, on an isolated and controlled environment.

Below are some sample test objectives and types for future considerations:

|  |  |
| --- | --- |
| **Performance Test Objectives** | **Possible Business Concerns** |
| Application Response Times | How long does it take to complete a specific task? This is typically benchmarking an action or business process. |
| Configuration Sizing | Which configuration provides the best performance level? |
| Acceptance | Is the system stable enough to go to production? |
| Regression | Does a new version of the software or component adversely affect response times? |
| Reliability | How stable is the system under a heavy work load? |
| Capacity Planning | At what point does performance degradation occur? |
| Bottleneck Identification | What is the cause of degradation in performance? |
| Product Evaluation | What is the best server for 100 users? |
| Concurrency | How many concurrent users can be on the system at any given time? |

|  |  |
| --- | --- |
| **Types of Performance Test** | **Possible Objectives** |
| Component Testing | Find the behavior and performance for each tier |
| Load Testing | Determine whether the system handles anticipated real-world load |
| Stress Testing | Find the system’s breaking point; measure whether system’s environment is properly configured for unexpected, high transaction volume |
| Volume Testing | Check stability of system under extended periods of load |

### Automation

Due to App Center being a new system, and considering the initial maturity and stability, QA does not plan to leverage automation scripts to reduce testing time at this point in time.

QA will begin to analyze the possibility to create automation for the App Center Project, to understand possible areas that make good candidates for automation.

Future needs to consider for automation include:

* Automation tools or frameworks that will integrate with LF Connect interface.
* Dedicated and stable environment to development automation
* QA resources (time and engineers) required for framework development and scripting

### Browser Compatibility Testing

Testing to ensure compatibility of the App Center functions with different browsers, including the latest versions of the major browsers such as Internet Explorer, Firefox. [Note: This is no longer required]

### ERP Related Testing

QA currently does not test ERP related functionality. [Is it safe to assume ERP team will be testing their reports and related changes?]

# Testing Needs

This section highlights the testing needs for the QA team to successfully test this new system, including the various test data requirements, application and systems to support testing, and physical equipment required.

# Operation Systems

The testing will be performed on the following operating systems, and machines will be required for testing. For best coverage with limited time and resources, QA testers will individually test unique OS in parallel. Lower priority OS may simply require a select subset of test cases to be executed. [Priority of OS needs to be finalized]

|  |  |  |
| --- | --- | --- |
| **Window XP** | **Use latest SP** | **Current SP Level** |
| 32 Bit only | Win XP Professional | SP3 |
| Win XP Home |
| **Windows Vista** |  |  |
| 32/64 bit | Windows Vista Home Premium | SP2 |
| Windows Vista Home Basic |
| Windows Vista Ultimate |
| **Windows 7** |  |  |
| 32/64 bit | Windows 7 Professional | SP1 |
| Windows 7 Home Premium |
| Windows 7  Ultimate |
| **Macintosh Intel** |  |  |
|  | 10.5.8 |  |

# Test Application Requirements

|  |  |  |
| --- | --- | --- |
| **Application** | **Descriptions** | **Notes** |
| TestTrack Pro (TTPro) | This will be the Bug Tracking application used for this AppCenter Project  APPCENTER will be a new platform created in TTPro, under the UPC project.  All bugs and defects will be managed and tracked under this project. | All bugs files will have the following prefix: **APPCENTER:** |
| Database Client | In order to test backend data stored in the database, a database client be required for data validation | Suggested DB clients: Golden  [Need database access details on QA environment] |
| SoupUI | Open Source tool used for web services and SOA related testing. This may be need to verify data from 3rd party vendors through the web services available | [need WSDL file location details &  need to identify what services to use what key data to verify not available via the Vindicia client |

# Test Equipment Requirements

QA Team will need the following LeapFrog devices for testing:

|  |  |  |
| --- | --- | --- |
| **Test Equipment** | **Current QA Inventory** | **Total Needed by AppCenter QA Team** |
| Leapfrog Exploer (CIP & PreCIP) | 49 | 3-6 |
| LeapPad (Madrid) | 26 | 3-6 |

# Test Data Requirements

The following test data will be required by the QA Team for testing purposes.

|  |  |  |
| --- | --- | --- |
| **Test Data** | **Details** | **Provided By** |
| Test Address for each locale | Test Addresses will be needed for each of the following locales:   * United States * Canada * United Kingdom * Ireland * Australia * New Zealand * Other | QA will search for a random sampling of addresses via Google, for each of these locales  Producers will provide a small sample of test addresses associated with Credit Card numbers |
| Credit Card Numbers | Test Credit Card information will be required for testing the payment portion of AppCenter.  QA will need for each locale, as well as for each credit card type(ViSA, Mastercard, etc) accepted for each locale | Development or Producers will provide the test credit card numbers for QA to use.  Possibly Vindicia or Chase Payment Tech will be able to provide test accounts we can use on the QA env.  For Production testing, a P-Card will be requested by QA Manager to Finance team – [Paul V]. |
| Product Catalog Details | The comprehensive list of products and product attributes, as well as pricing will be required for testing | Either QA can gain access to the Product Catalog CMS and view this information, OR it’s provided to QA team for reference. |
| Vindicia | Access to Vindicia’s Merchant Portal | <http://prodtest.sj.vindicia.com/>"  user name/password are "leapfrog\_admin"/XCAfuvt |
| Commerce Manager Client | Access to Elastic Path’s Commerce Manager Client to verify Catalog and Promotion details | Need access details to CM Client |
| Value Cards / Codes | |  | | --- | | US Retail Card (USV1) | | US LF.com Physical Card (USV2) | | US LF.com Virtual Code (USV3) | | CAN Retail Card (CAV1) | | CAN LF.com Virtual Code (CAV2) | | UK Retail Card (UKV1) | | AU/NZ Retail Card (AUV1) | | IR Retail Card (IRV1) | | ROW (Rest of World) Retail Card (OTHR) | | US TRU (Toys R US) Exclusive Book App Value Card (TRU1) | | US TRU Exclusive Creativity Value Card (TRU2) | | US TRU Exclusive Game Value Card (TRU3) | | Legacy Leaplet (TEST) | | Other types are still pending- when to expect? |
| Promotions |  | Still need list of Promotion Codes |
| GeoIP Coding | For this can we simply use Charles and set it up to do an external proxy through a free proxy server? This website: <http://proxy-list.org/en/index.php> provides proxy servers in different countries, some of them do not work always but it’s an option. |  |

# Test Environment Details

# QA Test Environment

Testing of App Center will occur in the QA environment. Here are the following machines from which the App Center components will be deployed. There will be 2 instances of each component on SQE, and 1 instance on STAGE.

|  |  |  |
| --- | --- | --- |
| **QA Environment** | **Server Name** | **Notes** |
| Store Front (SF) | emqlacsf01.leapfrog.com  emqlacsf02.leapfrog.com |  |
| Commerce Manager (CM) | emqlaccm01.leapfrog.com  emqlaccm02.leapfrog.com |  |
| Search Master (SM) | emqlacsm01.leapfrog.com  emqlacsm02.leapfrog.com |  |
| Web Services (WS) | emqlacws01.leapfrog.com  emqlacws02.leapfrog.com |  |
| Database | emdlacdb01.leapfrog.com |  |
| Inmon | evslcis2app01.leapfrog.com evslcis2app02.leapfrog.com | Inmon will be deployed to STAGE environment for initial testing. |

# STAGE Test Environment

|  |  |  |
| --- | --- | --- |
| **STAGE Environment** | **Server Name** | **Notes** |
| Store Front (SF) | emslacsf01.leapfrog.com |  |
| Commerce Manager (CM) | emslaccm01.leapfrog.com |  |
| Search Master (SM) | emslacsm01.leapfrog.com |  |
| Web Services (WS) | emslacws01.leapfrog.com |  |
| Database | emslacdb01.leapfrog.com |  |
| Inmon | evslcis2app01.leapfrog.com evslcis2app02.leapfrog.com |  |

# Project Team Roles & Responsibilities

This section summarizes the various members of the project team for the App Center project, as a reference new to this project.

# Project Team for App Center Onsite

Below is a summary of key resources involved in the App Center Project, for reference.

|  |  |  |
| --- | --- | --- |
| **Resource Name** | **Role** | **Responsibilities** |
| Julie Burns | Senior Software Project Manager | Project Manager for App Center Project |
| Kellie cox | Executive Producer | Specifications |
| Vickie Liang | Senior Producer | Specifications |
| Prolet Miteva | Senior Development Manager | Dev Manager |
| Ugendra Gandikota(Yuga) | Senior Software Engineer | Development |
| Lieyong Fu | Senior Software Engineer | Development |
| Rich Hampton | Senior Software Developer – UI | Development |
| Sandeep Dabade | Senior Software Engineer – Web | Development |

# QA Team Resources

The QA team allocated to this project will include 1 onsite LeapFrog resource, supported by QA resources from our Offshore Vendor in Vietnam, LTRC.

* 3 Initial LTRC resources will be involved in upfront training and test case development, with plans to ramp up the offshore team as deployment of incremental functionality is delivered to our test environment.
* The # of resources to be added are yet to be determined, and will be based on the number of test cases developed and complexity of testing, as well as the overall time available for testing.

|  |  |  |  |
| --- | --- | --- | --- |
| **Resource Name** | **Role** | **LeapFrog Experience** | **Responsibilities** |
| Alan Abar | SQA Lead for App Center Project | Started at LP on 5/2/2011 | Project Lead for QA Team  Test Planning  Test Case Development  Execution  Bug Management |
| Tri Nguyen | LTRC QA Lead | 1 Year 10 months  Emerald Titles(IPR, NRC, MATER), Madrid Baserom, Systems experience-core tester for Leapster 2 plugin, experience with all plugins, Holiday Ecommerce testing | QA Lead for LTRC  Test Case Development  Test Case Execution Feature Testing  Bug Verification |
| Phuoc Nguyen | QA | 4 Months Emerald Titles (PP2) | Test Case Development  Test Case Execution Feature Testing  Bug Verification |
| Thuy Nguyen | QA | 2 Years Madrid baserom,  Emerald (IPR), Systems Experience-core tester Didj.  Experience with all plugins. | Test Case Development  Test Case Execution Feature Testing  Bug Verification |
| 2-3 Additional QA Resources | TBD |  | Test Case Execution |

# Project Schedule & Deliverables

# Key QA Related Dates

### Deployments

Deployments will be planned for weekly builds, every Tuesday & Thursday [?].

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Key Dates** | **Project Milestones** | **LeapFrog Resources** | **LTRC Resources** | **Total** | **QA Activities** |
| May 16 – June 9 | Time Prior to Feature Complete | 1 | 3 | 4 | Test Planning  Test Plan Review  Test Case Development  Test Case Review  Ramping up QA Resources on Project  Testing weekly builds with incremental functionality (focus testing on what’s available) |
| June 9th | Feature Complete | 1 | 3 | 4 | 2 weeks of testing from Feature Complete until Code Complete |
| June 30th | Code Complete | 1 | 3 | 4 | After code complete, there is 4 weeks of testing. |
| July 1 -29th | 4 Weeks of Testing On QA after Code Complete | 1 | 5-6 | 6-7 | Start Official Testing on QA  Functional Testing  Performance Testing (?) |
| August 1-5 | Last week  Stage Testing(?)  Performance Testing | 1 | 5-6 | 6-7 | Wrap Up Functional Testing  Performance Testing (?) |
| August 9 | Release Date | 1 | 3 | 2-3 | We’ll need a few key resources to test on Production once we go live. |

# Out of Scope Functionality

* France and French-Canada storefronts (2012)
* Spanish Storefront (TBD)
* Entry to the store from outside a plug-in (Nov 2011)
* Madrid Specific Device Testing
* Leapster Explorer Device Level Testing
* Titles & Content Testing (Apps, Games, Ebooks, etc)
* Other features to consider for future release
  + Account > Download History: Order Details
  + Wish Lists
  + User Ratings
* ERP Related Testing

# Risks and Dependencies

* **New Project Risks**

The AppCenter is a relatively new system, and there may be inherent issues not captured during the requirements phase, development phase, or testing phase on QA environment, that will only be exposed on production, under real world conditions.

* **New QA resources**

A learning curve will be required for this new app center for QA, and a deeper knowledge of the system will be gained only through experience. The lack of previous knowledge / experience may pose potential gaps in testing.

* **Delays in Development**

Any delay in development time will directly cut into the QA testing time.

* **Deployment to QA Environment**

Delays in deployment or deployment related issues may impact QA’s testing time available.

* **System Stability**

Poor test environment stability and down time due to test environment configurations may impact testing.

* **3rd Party Vendor Dependencies**

Vendor related dependencies or issues may cause delay or block testing.

* **Last Additions to Project Scope**

Additions to project scope, may be forced upon and dictated by business needs. This may require additional testing time and/or resources, or shift of resources away from execution of lower priority test cases.

* **Last minute changes in Requirements or Specifications**

Changes to requirements or specifications may not transfer to QA’s knowledge once testing has begun, as focus will be on execution of current specs defined. Changes will need to be communicated to QA immediately, particularly when testing in underway.

# Entry & Exit Criteria

# Entrance Criteria

* Test Plan is reviewed by Project Team and signed off
* Test Cases are implemented, and have been reviewed by the Project Team
* QA Resources (onsite and offsite) have developed enough knowledge of project and provided enough ramp up time prior to testing
* Test Environment (hardware and software) is in place and available for testing

# Exit Criteria

* Full execution of QA’s Test Plan and completion of QA planned deliverables
* 100% Execution of planned Test Cases
* High severity defects are fixed prior to release
* No Blocking Issues Open
* Open issues have been discussed, and deferred accordingly. Risks and mitigations are discussed prior to deferral, and approved by project team

# Functional Testing in Detail

This section will highlight and detail the main functional areas of focus, based on the “App Center Functional Spec for Leapster Explorer and LeapPad Explorer” (ACFS).

Each section below will include:

* the Spec # or section of the ACFS document
* Functional Specifications from the ACFS.
* Test Specifications to guide the development of test cases

This will help serve as guidelines for test case development, to ensure we have traceability of test cases to the project specifications & requirements.

## Store Fronts for Each Locales (Sec 3)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 3 – General Feature Description | There will be a store front of the App Center for each of the following locales, for both Leapter Explorer and LeapPad Explorer: | QA will need to test store fronts for each locale |
|  | United States (US Dollar, USD) | * There should be a storefront of the App Center for US, with default currency of USD |
|  | Canada (CAD) | * There should be a storefront of the App Center for Canada, with currency of CAD |
|  | United Kingdom (Pound Sterling, GBP) | * There should be a storefront of the App Center for UK, with currency of GBP |
|  | Ireland (Euro, EUR) | * There should be a storefront of the App Center for Ireland with currency of EUR |
|  | Australia (Australian dollar, AUD) | * There should be a storefront of the App Center for Australia with currency of AUD |
|  | New Zealand (Australian dollar, AUD) | * There should be a storefront of the App Center for New Zealand with currency ofAUD |
|  | Other (US dollar, USD) | * There should be a storefront of the App Center for Other countries, with default payment currency of USD |

## DRM – Digital Rights Management (Sec 4)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 4 – DRM | There will be apps that play on both Leapster Explorer and LeapPad Explorer, and apps that play on LeapPad Explorer only. | * Determine the list of applications, and verify apps that play only in Leapster, only in LeapPad, and on both |
|  | For apps that play on both platforms, the two device model needs to extend to both devices (i.e., a user can install on 1 LEX and 1 Madrid, 2 LEX’s, or 2 Madrid’s). The packages may be different for Leapster and LeapPad (for the same title – e.g. Dora.) | * Verify ability of apps to play on both platforms * 1 LEX and 1 Madrid scenario * 2 LEX * 2 Madrids |
|  | All DRM licenses (app purchases, bonus codes, etc) are granted to an App Center/**Parent Account**. Each purchases is good for up to 2 devices linked to the Parent Account. | * Purchases should be good for two devices linked to the parent account |
|  | Only exceptions are the following. These licenses are granted to a device:   * 1st Time Flow (specific app) for LeapPad & Leapster CIP * Cheerios Promo Code (specific app) | * 1st time flow scenario * Cheerios Promo Code |
|  | Legacy Starter Code licenses are granted to the Parent Account (not changing existing implementation.) | * Legacy Start Code licenses |
|  | Floating License? |  |
| 4.1 Installation on 2nd Device | 1st Device:  An app is downloaded and synced automatically to the device (all 3 profiles) when she makes the purchase or code redemption. If the device is NOT connected at the time, the app will be synced automatically the next time it is connected to the computer |  |
|  | 2nd Device:  To install on the 2nd device that is linked to the parent account (that made the purchase,) User needs to go to the “On Your LeapPad” or “On Your Leapster Explorer” tab. User will see the app in the library NOT default checked to sync. User will need to click to select the app to be synced to the device. |  |

## Promotions (Sec 5)

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| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 5 – Promotions | Ability to set time limits on promotions | [need updated priorities from Marketing, and which promotions need to be in place for launch] |
| P1 | Ability to set quantity limits on promotions |  |
| P1 | Depending on promotion or card type, a code can award a user a specific title download |  |
| P1 | Depending on promotion or card type, a code redemption can allow a user to choose a download from a subset of the content library |  |
| P1 | Temporary price discounts on apps |  |
| P1 | Promotion can be applied to a subset of the library (e.g., 25% off all videos or 25% all Nick titles) |  |
| P1 | Discounts based on purchase quantity (e.g., buy 2, get 25% off) |  |
| P1 | “Buy one, get one free”  type offers |  |
| P2 | Personalized promotions based on user’s purchase and account history |  |
| P3 | A/B testing of promotions |  |
| P3 | Depending on promotion or card type, **a code redemption can award a user purchased** or earned **currency** |  |
| P3 | Bonus virtual currency for incrementing account by a certain amount (e.g., 100 points for $10 or 250 points for $20). |  |

## Product Attributes (Sec 6)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 6 – Product Attribute | The catalog should have a way of managing the following product attributes | * The Commerce Manager Client should be the interface to manage the product attributes. Can QA get access to CM Client and attempt to change product attributes, to test behavior on App Center store front? |
|  | Store visible (true/false) |  |
|  | Product name (short) |  |
|  | Product name (long) |  |
|  | Price (per locale) |  |
|  | Product short description |  |
|  | Product long description |  |
|  | Age start and end in months (also used by Learning Path) |  |
|  | Game Log Number (used by Learning Path) |  |
|  | Curriculum |  |
|  | Trailer (optional) |  |
|  | Product image(s) | * Images show up on these pages: Home, Category, Product Details, Cart, Promo Banners (Merchandising Associations/Up-sell/Cross-sell), Payment Information > Summary. |
|  | Availability start date |  |
|  | Availability end date |  |
|  | Product ID |  |
|  | Tracking ID |  |
|  | Package ID |  |
|  | Category associations (Games, eBooks, Videos, Flash Cards, etc) |  |
|  | Other attributes   * New * Top Pick * Works with (Leapster Explorer and/or LeapPad Explorer)   + **NOTE:** Products in a device storefront should be suppressed if they are not designated as working with that device in product attributes * Skill (values = Language and Literacy, Learning for Life, Mathematics, etc) * (P3 – won’t use for launch) Character (values = Dora the Explorer, LeapSchool, etc) (or Disney, Nickelodeon, etc) * (P3 – won’t use for launch) Deals (Sales, Learning Packs, etc) | **New Item** (Boolean) - Used to denote that this is a newly added item. Might be used to display an overlay on top of the product image  **Top Pick** (Boolean type) - used when user selects “Top Picks” in the sorting field. Might be used to display an overlay on top of the product image  **Works with** (Short Text) – used to display the compatible platform info  **Skills** (Short Text) - Skills associated with this product. Ex: Language and Literacy. This attributed is used in filtered navigation.  **Character** (Short Text) Characters associated with this product. Ex: Dora the Explorer.  This attributed is used in filtered navigation. **Deals** ? |
|  | Locale(s) |  |
|  | Featured apps and assets for the Home page per locale |  |
|  | Banners for the main category pages per locale |  |
|  | Up-sells and cross-sells for the Cart per locale |  |
|  | Coming Soon products (no Buy button) | **Coming Soon** (Boolean) Denotes a product not yet available. Should disable/hide AddToCart button for these products. |

## UI (Sec 7)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.1 – **Entry to the Store** (Linked Parent Account Required) | **Entry to download store will be from within a plugin**   * LeapPad Explorer plugin * Leapster Explorer plugin | * To enter download store, profile has to be linked to a parent account * Profile not linked should display a page to remind user to link the profile before getting access to store |
|  | **Parent Account /Toy Setup** | * User is prompted to sign in and link her toy * If user doesn’t link a profile with a child, the user should see an exclamation mark next to the unlinked profile * If user enters the plug-in with an unlinked profile, she will NOT be able to access the store * User will see a page reminding to link the profile before she can access the store |
|  | **Error Case 1 – Wrong Account** | * If the parent account linked to the device profile is different from the account that User currently signs in with, a page should display “Parents. Your account is not linked to this LeapPad Explorer. To access the App Center:”   + Link My LeapPad Explorer to this account   + Sign in to a different account   + Not Sure. I need more info. |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.1.1 – Error Cases | 7.1.1.1 Profile Not Linked | If User enters the plug-in with an unlinked profile (i.e. “STAR” in the screenshot above,) she will NOT be able to access the store.  She should see a page reminding her to link the profile before she could access the store (not visible.) |
|  | 7.1.1.2 Wrong/Different Account | If the parent account linked to the device profile is different from the account that User currently signs in, the following error page shows: “Parents Your account is not linked to this LeapPad explorer. To access App Center…” |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.2.1 – LeapPad Explorer 1st Time Flow – Select Free App | User enters a profile for a device that has NOT yet chosen starter app | * Step 1 –User Clicks on the “Go the App Center” button on the plug-in home OR User clicks “App Center” on the plug-in left nav |
|  |  | * Step 2 – User is in the “App Center”. She is prompted to select a free app * If user clicks Download Free Apps before selecting a title from the library on the left, she will get a dialog with instructions. Clicking Close or (x) closes the dialog |
|  |  | * Step 3 – User Selects a Game on the left.   + User sees more info about the selected game at the center of the page.   + The information changes as user selects a different game on the left   + The game should display     - Product Name     - Product Short Description     - Age start and end     - Trailer (optional) * Step 4 – User clicks “Download FREE apps” link   + User should see the downloading dialog   + Apps should be downloaded to the user’s computer   + If user clicks “Skip for Now”, user should see the App Center Home page   + If user clicks on “App Center” in the left nav or the “Go to App Center” banner on the home page in that visit or a subsequent visit, they’ll continue to get the “1st Time Flow – Select Free App” if they haven’t selected their starter app |
|  |  | IMPORTANT: If User clicks on App Center in the left nav or the Go to the App Center banner on the Home page in that visit or a subsequent visit, she’ll continue to get the 1st Time Flow – Select Free App if they haven’t yet selected their starter app. |
| Sec 7.2.2 – LeapPad Explorer 1st Time Flow – Select App | Users with Leapster Explorer CIP devices will get to choose a starter app (use serial number to determine whether a starter app has been chosen for a device).  This download is valid for 1 device only (i.e. this specific device that hasn’t downloaded the starter app before.) |  |
|  | Original Leapster Explorer owners (pre-CIP) will have legacy Leaplet Starter Codes, which will have their own separate, but similar, flow (see Redeem Code Subset of Apps section). That legacy Leapster starter download is tied to the parent account (valid for 2 Leapsters linked to the parent account.) |  |
|  | The flow a user will see if they enter a profile for a CIP device that has NOT yet chosen their starter app. It is similar to the LeapPad Explorer 1st time flow. The list of the apps is the same for both devices |  |
| Sec 7.2.3 Error Cases | 1st Time Flow Step 2 > Download Without Selecting a Title | If User clicks Download before selecting a title from the library on the left, she will get a dialog with instructions. Clicking Close or the (x) closes the dialog |

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.3 – Leapster Explorer(CIP) 1st Time Flow – Select Free App | Users with Leapster Explorer CIP devices will get to choose a starter app | Step 1 – User clicks on the “Go to the App Center” button on the plug-in home OR user clicks on the “App Center” on the plug-in left nav |
|  |  | Step 2 – User is in the “App Center”. She is prompted to select a free app   * The art on the Leapster Explorer page does not have the 1,2,3 – 3 free learning apps message at the top |
|  |  | Step 3 – User selects a Game on the left   * User sees more information about the selected games at the center of the page * The information changes as user selects a different game on the left |
|  |  | Step 4 – User clicks “Download”   * User should see the downloading dialog * Selected App is downloaded to the User’s computer * If user clicks “Skip for Now”, user should see the App Center Home page * If user clicks on “App Center” in the left nav or the “Go to App Center” banner on the home page in that visit or a subsequent visit, they’ll continue to get the “1st Time Flow – Select Free App” if they haven’t selected their starter app |
|  | Error Cases: Parent Token (i.e. parent account that the App Center remembers) doesn’t match the account that the current device profile is linked to (i.e. Different Account). | –In this case, there should be a message that says “We currently don’t show this LeapPadExplorer linked to your account. What would you like to do?”   * Link my LeapPadExploer to this account * Sign-in to a different Account * Not Sure, I need more help. |

* **LeapPad Explorer 2nd Time Flow –**
  + The user should not see the 1st Time flow – Select Free App
* **Leapster Explorer 2nd Time Flow –**
  + The user should not see the 1st Time flow – Select Free App
* **Leapster Explorer (Pre-CIP) 1st Time Flow – Select Free App**
  + Users with Leapster Explorer Pre-CIP will have legacy Leaplet Starter Codes
  + ????

## Navigation (Sec 7.3)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.3 – Navigation | Redeem Code | * User will be asked to enter a password before the Redeem Code dialog is displayed * If user signs in successfully, this Redeem Code dialog should display * If user doesn’t sign in successfully, an appropriate message should be displayed |
|  | Account [x@x.com](mailto:x@x.com) (Your account has $10.00) | * The parent account that is linked to the device profile should display   + Display account / email & balance * This display should refresh any time the person adds or subtracts from their stored balance |
|  | Dropdown Menu | * App Center Account   + User will be asked to enter password   + If user signs in successfully, she will go to the App Center Account Page |
|  |  | * Redeem   + User will be asked to enter password   + If user signs in successfully, she will see the Redeem Code dialog |
|  |  | * Sign Out   + Display is changed to “App Center Account” instead of User’s account and balance.   + Next time User visits the store, the generic text “App Center Account” remains (until she successfully signs in through the “Enter Password” dialog in the store.) |
|  | My Cart | * The number of items in the Cart should be indicated   + This display should refresh any time the person adds or removes an item from their cart * Links to My Cart |
|  | Navigation Main | * Apps can be assigned to multiple categories * There should be the ability from within the catalog management tool to determine whether a category should be displayed in the main navigation or not * If a category is added or removed, the layout should update appropriately (stretch, condense) |
|  | Categories | * List of all categories: * Games * eBooks * UltraBooks * Videos * Creativity * Flash Cards * Expansions * French Learning Apps (Canada only) * This should link to their respective category page * If there are no products assigned to a display category, it should be automatically suppressed from the UI.   [What will be the easiest to test this? Can QA have access to turn apps on and off, via CMS?] |
|  | By Skill | * Skills include:   + Reading & Writing   + Mathematics   + Science & Social Studies   + Creativity & Life Skills * Each skill will link to the page where ALL types of products (e.g. games, eBooks…) that teach the skill are displayed. * Order of items should be controllable from CMS (or, at the very least, items must be grouped by type as ordered above, and alphabetical order within type) * If there are no products assigned to an attribute, it should be automatically suppressed from the UI. |
|  | **Bread Crumbs (TBD) [Is this in for first release?]** | * 1st position   + App Center * 2nd position:   + Games   + eBooks   + Videos   + Flash Cards   + Expansions   + Skill (TBD)   + Search [not clickable] * 3rd position:   + PDP page: Product short name   + Item searched on   + Skill name * The end of the breadcrumb (i.e. current page) is not clickable. |
|  | **P2 (back and forward) – TBD** | * will assess based on Elastic Path’s out-of-the-box functionality |
|  | **Locale** | * Display the current locale (bottom right corner) * Info Button   + Clickin on it opens the Country info dialog that explains available payment methods in the current locale and links to other stores |

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| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.3.1 – Navigation >> Account Menu | Show User’s account & balance. | * User’s account & balance are displayed by default. (The store remembers the parent account linked to this device.) * User’s account & balance are NOT displayed if she clicked “Sign Out” in the dropdown menu in the last session. Generic “App Center Account” text is displayed instead. * Balance should refresh any time User redeems a Download Card, legacy Leaplet or completes a purchase using the account balance. * User will be asked to enter a password before the Redeem Code dialog is displayed |
|  | Account Dropdown Menu | * Clicking on the account **text** (e.g. [tad@leapfrog.com](mailto:tad@leapfrog.com). Account balance: $10.00) or the **arrow** opens the account dropdown menu. |
|  |  | * Case 1: If the App knows the parent account (i.e. parent token exists) and User has NOT clicked “Sign Out” in the previous session.   + - The Account Display Is   [tad@leapfrog.com](mailto:tad@leapfrog.com)  Account balance: $10.00   * + - The Account Dropdown Menu is       * App Center Account       * Redeem Code       * Sign out     - Clicking on any menu will bring up the Enter Password |
|  |  | * Case 2: If the App does NOT know the parent account (i.e. parent token does not exist) or User has clicked “Sign Out” in the previous session:   + The account text display is: App Center Account   + Clicking on it brings up the Enter Password dialog   + If User enters her email and password successfully, she will see the App Center Account page   + The Account Dropdown Menu is     - App Center Account       * User will be asked to enter password when she clicks on this link       * If User signs in successfully, she will go to the App Center Account page     - Redeem Code       * User will be asked to enter password       * If User enters password successfully, she will see the Redeem Code dialog     - Sign out       * Clicking on “Sign Out” changes the account display to the generic “App Center Account” text link |

## Search (Sec 7.4)

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| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.4 – Search | If products match the search terms | If products match the search terms, it will be displayed in the center of the screen |
|  | If no products match the search terms | If no products match the search terms, you should get a message:“Search Results – Sorry, we couldn’t find any matches for ‘dorra’. Please check your spelling or try a new search.” |
|  | The search term will be displayed in the input field. | The search term will be displayed in the input field. |
|  | The bottom section will display up to 3 “Top Picks” from any category. | The bottom section should display up to 3 “Top Picks” from any category. |

## Store Locale (Sec 7.5)

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| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.5 – Store Locale/Country | When user visits App Center, the locale will be based on the following criteria(in order) and display the appropriate storefront   1. Saved Billing Address 2. Last Successfully Credit Card Transaction or Download Card Redemption (new/locale-specific cards) 3. Geo Location | * The appropriate store front should be displayed based on Saved Billing Address * The appropriate store front should be displayed based on Last successful Credit Card transaction * The appropriate store front should be displayed based on Download Card redemption (new/locale-specific cards) * The appropriate store front should be displayed based on Geo Location (Elastic Path functionality) |
|  | The country indicator is at the bottom of the page | * The country indicator at the bottom of a page should be displayed for appropriate locale |
| 7.5.1 | Country Info Button | * Clicking the Info button should open the Country Dialog that explains available payment methods in the current locale and links to other stores * The country info button is also on the Payment Information Page |
| 7.5.2 | Country Info Dialog | * The Country Info Dialog should display   + Title: [Current Store Locale]   + Message: You are currently shopping in the [U.S.]\* store. Only [U.S.]\* App Center Download Cards or credit cards with [U.S.]\* billing addresses are accepted.\*current store   + Close & X buttons should Closes the dialog.   + Shop Another Country link |
|  | Shop Another Country link | * Clicking on it opens the country menu:   • Australia & New Zealnd  • Canada  • Ireland  • UK  • Other   * Clicking on a country should takes User to the Home page of that country. * Log User out of her account to prevent billing locale mismatch. * If there’s a problem once she starts the checkout process, she will be given specific error messages.[what error messages] |

## Platform App Center Home Page (Sec 7.6)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.6 – Platform App Center Home Page | Screen Elements: Price | * Regular Price Only: Price appears in white * Sale Price Only: Price appears in yellow * Regular Price and Sale Price: Original price is crossed out in white, sale price appears in yellow. * Exception – Cart page:   Original price is crossed out in gray, sale price appears in black. |
| 7.6.2 | Optional Banner Ad (part of right) | * Banner add located on the right nav * There will be an optional ad banner on the Right Nav. * It will link to a dialog or full page (or not link) * If there is no ad banner set, this space should close up |
| 7.6.1 | Featured | * There will be a section for featured apps. * There needs to be a management tool that allows Producers or Marketers to update these featured apps and assets separate from a release. * TBD assets/layouts featured * o May want at least 2 different layouts (of different sizes) * o May have videos that automatically play for x apps * o May feature 1 app at a time, and rotate different apps through this section with the ability to select a particular ad spot |
| 7.6.3 | Categories (on the page & part of Right Nav) | * The same categories should appear on this page as the “main navigation” display categories. * All the apps assigned to a display category should appear, with the ability to scroll if the number of apps exceeds the viewable space. * If there are no products assigned to a display category, it should be suppressed. * Apps should be ordered alphabetically by top pick, then new, then all others. |
| 7.6.4 | By Skill (part of Right Nav) | * Skills are set up as attributes. In the backend, clicking on these pages will be similar to executing a facet search to find ALL products containing the specific attribute (including ALL categories.) However, in the frontend (P2), a skill page layout (e.g. Mathematics) is the same as a category page layout (e.g. Games.) |
| 7.6.5 | Redeem Code (part of Account dropdown menu & Right Nav) | * This link ALWAYS requires User to enter password. * Once User enters a password successfully, a check should be done to see if User has the proper device linked. If so, the Redeem Code dialog should display. If not, display the device NOT linked error dialog. * See Redeem Code section for more details[need to get codes]. |
|  |  |  |

## Platform Category Page (Sec 7.7)

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| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.7 – | Platform Category page (Games, eBooks, Videos, etc) & Skill page (Reading & Writing, Mathematics, etc) | List of Categories:   * Games * eBooks * UltraBooks * Videos * Creativity (There may not be products in this category at launch) * Flash Cards * Expansions * French Learning Apps (Canada storefront only) |
|  |  | The default sort order on the category pages should be by “Top Pick” and then alphabetically (a to z.) |
|  | Elements | Refer to section 7.7 of App Center Specs document for detailed elements |

## Product Details Page (Sec 7.8)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.8 – Product Details Page | Elements | Refer to section 7.8 of App Center Specs document for detailed elements |

## My Cart – Products Added (Sec 7.9)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.9 Workflow | 1. User clicks “Add to Cart” | Note: User could click “Add to Cart” on any of the following areas:   * Product Details Page * Category Page * Search Results * Banner/Promo (e.g. “You May Also Like”) |
|  | 1. User will be taken to the Cart page | * When the Cart page is loading, the “Add to Cart” button on the Product Details page could change to “Adding to Cart” to indicate state change |
|  | 1. User sees the Cart page |  |
| Sec 7.9.1 Cart Single Product | Cart – Single Product | * Refer to Sec 7.9.1 for screenshot |
| Sec 7.9.2 Cart Multiple Products | Cart – Multiple Products | * Refer to Sec 7.9.2 for screen elements |
|  | **Cart Persistence** | * Cart is persistent for 365 days (EP default) * Cart is NOT shared between locales/countries. Cart is specific to a particular country/storefront. * Cart is shared between device plug-ins (e.g. between LeapPad Explorer & Leapster Explorer.) * Cart persistence is computer-based. All persistent items on the same computer (from the previous session and from the other plug-in – e.g. LeapPad or Leapster Explorer) will be added to the cart. |
|  | **# of Cart Items:** | * There’s no limit on the number of products in cart. However, each product only shows up once in the cart (i.e. quantity is always one) regardless of how many times User adds a product to cart |
| Sec 7.9.3 – Cart - No Products Added | Cart- No Products Added (Empty Cart) | * When there are no products added to the cart, the empty cart page should be displayed |
|  | Screen Elements | Top & Right Navigation  Top Ad Banner/Promotion (optional)  Right Promotion or Dynamic Content Area  Continue Shopping |
|  |  |  |
|  |  |  |

## Enter Password / Sign In Dialog (Sec 7.10)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.10.1 – Enter Password Workflow | 1) User clicks Checkout on the Cart page  2) User will ALWAYS be asked to enter her password before checkout:  3) (If the account is linked to applicable devices) User sees the Payment Information page after signing in successfully.  If the page takes a long time to load, a loading graphic could be displayed: |  |
| Sec 7.10.2 – | Enter Password Workflow (Account) |  |
| Section 7.10.3 | Enter Password Workflow(Redeem Code) |  |
| 7.10.4 | Enter Password Error Cases |  |
| 7.10.5 | Forgot Your Password Dialog |  |

## CheckOut Error (Sec 7.11)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.11.1 | Error: No Applicable Toy Linked |  |
| Sec 7.11.2 | Error: User Signs in to a Wrong/Different Parent Account |  |
| Sec 7.11.3 | Checkout Error – Cart Includes Content Already Purchased |  |
| Sec 7.11.4 | Checkout Error – Store Locale Doesn’t Match Saved Billing Address |  |

## Payment Information (Sec 7.12) –[THIS SECTION INCOMPLETE]

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.12.1 | Case 1 – No Payment Required | * If the user has an adequate account balance for their transaction, the Redeem Code and Credit Card section should be suppressed * Refer to Section 7.12 for more details |
| Sec 7.12.2 | Case 2 – New Credit Card (no saved card on file) | * If there is not enough balance in User’s account to cover for the purchase (and User doesn’t have a saved credit card,) credit card/billing fields will show on the Payment Information page. * The country field defaults to the locale of the current storefront  *Redeem Code:*  * User could only redeem App Center or Leaplet Download Card Code (value/currency) on the Payment Information page. The amount in the Summary box should update after successful redemption. * After successful code redemption, if there’s sufficient balance in User’s account, switch to the Case 1 layout (no billing fields.) |
| Sec 7.12.3 | Case 3 – Saved Credit Card | * If User has saved a credit card, the following screen should appear. Only one credit card could be saved per account * User is NOT required to enter the security code to use a saved card. * Screen Elements (Section 7.12.3) * Error Cases |
|  |  |  |
|  | **Supported Credit Cards:** | * Visa * MasterCard * American Express * Discover Card |
|  | **Differences from US** | * Province * Postal Code (A9A 9A9 – A=letter; 9=number) * Currency: CAD (displayed in $) |
| 7.12.3.1 | Saved Card > Pay with New Card | * If User selects “Pay with New Credit Card” (even though there’s a saved card), billing fields should appear |
|  |  |  |

## Credit Card Error Cases(7.12.4)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| 7.12.4 | Credit Card Error Cases | * REFER TO SECTION 7.12.4 for all Error Cases to test |

## Security Code Info Dialog (7.12.5)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| 7.12.5 | Security Code Info Dialog | * REFER TO SECTION 7.12.5 for screenshot |

## Payment Information (7.13)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| 7.13.1 | No Payment Required (Sufficient Account Balance) | * REFER TO SECTION 7.13.1 for screenshot |
| 7.13.2 | Payment Required (Account Balance is NOT sufficient) |  |

## Checkout Confirmed – Thank You Page(Sec 7.14)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.10.1 – | Title | * TBD |
|  | Order Number | * Dynamic order # (16 digits from Vindicia |
|  | Products in cart | * Product image * Title * Works with (Leapster Explorer or LeapPad Explorer) * Price (same on-sale formatting as elsewhere) |
|  | Summary | * Subtotal * Tax * Account Balance Applied * Order Total * Previous Balance * Balance After Purchase |
|  | What’s Next instructions | ? |

## Order Confirmation Email

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
|  | Specific Details for Email notification to be provided (TBD) | * Verify the email notification being sent out throughout the entire end to end process of App Center |

## Redeem Code (Sec 7.16)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.16 | There are currently six areas where User could find the Redeem link. User will be asked to enter password first before redeeming (except for “Account” and “Payment Information” pages):   * Enter Password:   + Store Home   + Nav * Skip Password (User is already on signed-in pages):   + Account   + Payment Information   \*Note: Skip Sign-in if User clicks the Top Nav “Redeem” link on “Account” or “Payment Information” pages (TBD) | * Verify the 6 areas * User should be asked to enter password first before redeeming * etc |
|  |  |  |

## Redeem Code – Enter Password (Sec 7.16.1)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.16.1 – | Workflow | 1. User clicks Redeem on any of the following areas:    * + Right Navigation\*      + Top Navigation > Account Dropdown Menu      + App Center Account Page      + Checkout > Payment Information 2. User sees the Enter Password dialog if she’s from any of the following pages:    * + Right Navigation\*      + Top Navigation > Account Dropdown Menu   User is NOT asked to enter password in if she’s from any page below:   * + - App Center Account     - Checkout > Payment Information |
|  | Screen Elements | Continue  “Forgot Your Password” |
|  | Error Cases | 1. Wrong Email or Password 2. No LeapPad Explorer or Leapster Explorer linked to the account.   If User is in the LeapPad Explorer plug-in “We currently don’t show this LeapPad Explorer linked to your account”  If User is in the Leapster Explorer plug-in: “We currently don’t show this Leapster Explorer linked to your account” |
|  |  | -There is NO direct link to the Redeem Code dialog in other areas of the plug-in. User will be directed to the App Center first. |
|  |  |  |

## Redeem Code Types (Sec 7.16.2)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.10.1 – | **Value – App Center Download Codes & Legacy Leaplet Codes** | * USV1 US Retail Card * USV2 US LF.com Physical Card * USV3 US LF.com * Virtual Code * TRU1 US TRU Exclusive Book App Card * TRU2 US TRU Exclusive Creativity Card * TRU3 US TRU Exclusive Game Card * CAV1 Canada Retail Card * CAV2 Canada LF.ca Virtual Code * UKV1 UK Retail Card * (including Northern Ireland) * AUV1 Australia/ * New Zealand Retail Card * IRV1 Ireland Retail Card * OTHR "Rest of World" Retail Card * RTLC Legacy Leaplet Physical Cards * (Note: Legacy Retail Leaplet Codes do not have a locale associated with them so we will need to use the storefront that they redeem it from to determine the currency.) * LFOL Legacy Leaplet Virtual Codes * (same note as above) * BND3? Legacy Retail Hardware Bundle * (SKU 66004: Penguins) |
|  | **Download Specific App** | **Legacy Target Bonus Leaplet Card (**T. Rex’s Mighty Roar)  **Cheerios Promotion (** Alphabet Stew)  **LeapSchool Included eBook (**LeapSchool eBook) |
|  | **Download One from a Subset of Apps** | - **Legacy Starter Leaplet Download Card for Leapster Explorer**  - You should only be able to download one app for a subset of apps |

## Redeem Code – Entry (Sec 7.14.3)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.14.3 | Right Nav | * There should be a Redeem Code Dialog in the right nav, that supports the following codes * All Types   + Value – App Center Download Cards & Leaplet Legacy Codes   + Specific App   + Subset of Apps * **Enter Password Dialog should appear** |
|  | **Top Nav > Account Dropdown Menu’** | * There should be a Redeem Code Dialog in the Top Nav > Account Dropdown menu, that supports the following codes * All Types   + Value – App Center Download Cards & Leaplet Legacy Codes   + Specific App   + Subset of Apps * **Enter Password Dialog should appear** |
|  | **App Center Account** | * There should be a Redeem Code Dialog in the App Center Account menu, that supports the following codes * All Types   + Value – App Center Download Cards & Leaplet Legacy Codes   + Specific App   + Subset of Apps * **Enter Password Dialog should appear** |
|  | **Checkout >**  **Payment Information** | * There should be a Redeem Code Dialog in the App Center Account menu, that supports the following codes   + Value only – App Center Download Cards & Leaplet Legacy Codes * User should not be asked to sign in again here |
|  | **Workflow – Redeem Dialog** | * User clicks Redeem on any of the following areas: * User is prompted to enter password (“Enter Password” dialog opens.) * User sees the Redeem Code dialog after entering password successfully. * User can enter any code type in this Redeem Code dialog. * Depending on the type of code, User should then be presented with the appropriate UI (account balance, choice of a subset of apps or specific app.) * Exception:   The only code type that can’t be entered here is a store discount/promo code (TBD.) That should be entered on the Payment Information page during checkout. |
|  | **Screen Elements** | **16-digit entry fields**   * Each box accepts 4 digits. * Supports copy & paste: User could copy and paste a 16-digit number and the number will go into each box appropriately (even if it includes dashes - same as existing Leaplet entry box functionality.)   **State/Province/County dropdown**  US, Canada, UK and Rest of World only (for escheatment/tax reporting purpose)  This dropdown menu should NOT show in other storefronts.  For US, it’s a State dropdown.  For Canada, it’s a Province dropdown.  For UK, it’s a Country dropdown:   * England * Northern Ireland * Scotland * Wales   For Rest of World, it’s a Country dropdown:   * Brazil * China * Colombia * Germany * Japan * Korea * Mexico * Philippines * Poland * Puerto Rico * Russia * Singapore * South Africa * Spain * Taiwan * Vietnam * Zimbabwe * Other |
|  | **Error Cases** | When User enters a Store Promo Code, Prompt User to enter it during checkout instead.  Copy (TBD) |

## Redeem Code Type 1 : Value- App Center Download Card & Leaplet Retail Legacy Code (Sec)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.10.1 – | An App Center **Download Card** is locale specific. It could only be redeemed in the store that matches the card locale. | * Verify Download Cards for specific locales only can be redeemed in the store that matches the card locale. |
|  | A **Leaplet** Retail Legacy Code is not locale specific. We need to determine which storefront and currency to direct User to. | * Verify Leaplet Retail legacy codes can work for any locale. |
|  | Workflow | User enters a Download Card or Leaplet Retail Legacy Code on the Redeem Code dialog, Store Account page or Payment Information page (during checkout): |
|  |  | **Entry Case 1:** Payment Information Page  (Instruction on the dialog specifies App Center and Leaplet download cards only) |
|  |  | **Entry Case 2:** Top Nav, Right Nav and all areas other thant the Payment Information Page  (Instruction on the dialog specifies accepting other LeapFrog bonus codes) |
|  |  | **Error Cases - -** Download Card is not valid in the current storefront/locale   * Used * Invalid Code Type * French Code |
|  |  | If the code is a valid Download Card for the current store locale, User sees the Redeem Confirmation dialog with the new account balance. |
|  |  | If the code is a valid Leaplet Retail Legacy Code (code itself doesn’t indicate applicable locale,) we will credit User’s account based on the current store locale/currency\*. |
|  |  | User closes the Redeem Confirmation dialog. She is back to the page where she clicked Redeem or Apply.  If User is on the Checkout > Payment Information page, the Summary box should update with the new amount. |

## Redeem Code Type 2 : Code for Specific App (Sec 7.14.4)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.10.1 – |  | * If User enters a code that is good for a specific app, there should be a dialog showing the specific app (e.g. T. Rex’s Mighty Roar) that is being downloaded and instructing User to connect her device if it’s not already connected. |
|  |  | Each of the following promotions will be one generic code for all users:   * Cheerios Promo Code (one code for all users) * LeapSchool free eBook Promo Code (one code for all users) |

## Redeem Code Type 3 : Subset of App (Sec 7.14.5)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.10.1 – |  | Some codes, including legacy Leaplet Starter Codes, will be good for a subset of apps from the Store. Depending on the code, the available apps should be displayed with the ability to see details on each app and then select one to download. |
|  | **Legacy Leaplet Starter Code:** | * A Leaplet starter code is NOT device-specific. User could redeem it in the **Leapster Explorer App Center** or the **LeapPad Explorer App Center**. The subset of apps is available in either device format. |
|  |  | * Pre-CIP Users should NOT be able to access the old Leaplet store with a legacy Leaplet starter code. Users will be asked/required to update their plug-in so they could access the App Center. |
|  | **Workflow:** | Step 1: Entry – Redeem Dialog:   * User clicks Redeem on any of the Redeem areas   User is prompted to enter password (“Enter Password” dialog opens.)   * User sees the Redeem Code dialog after entering password successfully.   Step 2: User enters a code that’s good for a subset of apps. User sees the app selection dialog.   * Notice the download terms message at the bottom of the dialog.   Step 3: User selects a Game on the left.  User sees more information about the selected game at the center of the page. The information changes as User selects a different game on the left.   * Notice the download terms message at the bottom of the dialog.   Step 4: User clicks “Download.”  User sees the downloading dialog. Selected app is downloaded to User’s computer.  NOTE: On Download, we need to check again to ensure the code is still available.  After redemption, there should be a confirmation dialog telling the user to connect their device. OK should dismiss the dialog. |

## Redeem Code Info Dialog (Sec 7.14.6)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| Sec 7.1.14– | Redeem Code Info Dialog Type 1 (from a Payment Information page during Checkout) | * The “Redeem Code” dialgo opens if User clicks on the Redeem Code info button on any Payment Information page or Redeem Code dialog during checkout * Dialog provides 16 pin code field with state drop down * Cancel Should close this window * Redeem button should submit the redeem request * “Where to buy?” link should open a page (country specific) in an external browser. * Close button should close the window |
|  | Redeem Code Info Dialog Type 2 (from Right Nav & Account) | * The “Redeem Code” dialog opens if User clicks on the Redeem Code info button from the Right Nav or Account summary page |

## My Download Store Account (Sec 7.14)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| 7.14.1 Edit Billing Information | Redeem | See Redeem Code section.   * Note: All types of code could be redeemed from here except for store promo code (enter during checkout) |
|  | Edit | * Opens the Edit Billing Information dialog |
|  | Delete | * Opens a confirmation dialog asking User if she wants to delete the saved credit card and billing information. |
|  | Redeem Errors | * Invalid code * Used * Store Promo Code (enter during checkout) |
|  | Edit Billing Information | You should be able to edit Credit Card Information:  Name on Card  Expiration Date (month and date)  Security Code  Billing Address  Country is not an editable field |
|  | Delete Card | You should be able to delete the card |
|  | Save | You should be able to SAVE the billing information |

## Art (Sec 7.15)

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
| 7.15.1 Price Display | Type 1 | * Display prices in whole numbers (e.g. $5, $10 and $20.) Display in two decimal points only when necessary (e.g. $7.50.) |
|  | Type 2 | **Cart, Payment Information, Thank You and Order Confirmation Email**   * Display all prices in two decimal points (e.g. $5.00) |
|  | Sale Price Display | * Regular Price: Price appears in white * New/Sale Price: New Price appears in yellow. Original price is crossed out in white, new/sale price appears in yellow. * Exception – Cart page: Original price is crossed out in gray, new/sale price appears in black. * Refer to Sample International Price Display |
| 7.15.1 App Icon Sizes | 34x37 (small) | * **Small Icons are to be used for** Payment Information, Error Dialog * Already Purchase Error Dialog |
|  | 87x94 (medium) | * **Medium Icons are to be used for** * Home * Category * Cart * “You may also like” * 1st Time Flow/Redeem Subset * Search Results * Thank You pages |
|  | 177x191 (large) | **Large icons are to be used for**   * Product Details * 1st Time Flow/Redeem Code Subset Step 2 * Product Details |
| 7.15.1 Dynamic Content |  | There are Dynamic Content areas on the following pages:   * Home   + Banner     - Asset Type: Flash file * Right Nav   + Promotion (This area should close up when there’s NO promotion)     - Asset Type: Image (link optional)       * External link that opens in User’s default browser (e.g. links to the promotion legal terms) * Category (i.e. Games, eBooks…)   + Banners (1 for each category)     - Asset Type: Image (link optional)       * Internal link that goes to a Product Details page. * Skill (i.e. Reading & Writing, Mathematics…) – facet search results   + Banner (1 for all skills)     - Asset Type: Image (link optional)       * Internal link that goes to a Product Details page. |

## Refund Policy

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
|  | **Chase refund policy must be posted on the App Center.** |  |

## Reporting

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
|  | Track Tie Ratio of LeapPad users who redeem the TRU $25 gift card (TBD) |  |

## Customer Service Tool

|  |  |  |
| --- | --- | --- |
| **Spec #** | **Functional Specification** | **Test Specifications** |
|  | Need Access details for Customer Service Tool on QA Test Envirnoment | * Verify integration of Customer Service Tool |