Testing Team Best Practices
Fall Crush 2004 Edition

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I Introduction

This document will outline best practices for the Fall Crush Testing Team. It will attempt to encompass the entire, year-round Fall Crush process and will be amended when determined necessary by Team members. It is presented in both a Calendar and Topical Outline. Each outline is cross-referenced by topic and month; i.e., items in the Calendar Outline are followed by their respective topics and items in the Topical Outline are followed by the month in which they occur. Rather than a set of specific procedures, this document is meant as a guide to be used throughout Fall Crush to ensure the Testing Team is keeping on-track with its stated puPRoses.

List of Topical Abbreviations (as used in Calendar Outline):

BCP- Beta CD Production
BT- Bug Tracking
EE- External Event
PR- Process Review
SD- Script Development
TC- Testing Community
TP- Testing Process
TTM- Testing Team Management
II  Topical Outline

Testing Team Management

- Testing Team Kick-off (Feb)
- Establish preliminary timeline for testing procedure (Feb)
  - The timeline should consist of schedules for Beta CD production (Burn Schedule), actual Summer and Fall testing schedule, and Standards Lab reservation schedule.
- Assign tasks to team members (Feb)
  - *Testing Manager* – This individual is responsible for the various areas of the Testing Process, including the following:
    - Data flow – assign bug entries from the testers themselves back to the Developers or other groups or individuals (i.e., Script Editor, Bug Tracking Admin, etc.)
    - Business rules – develop standard format for bug entries, establish procedures for testers to follow during testing, coordinate used script archiving
    - Manage testers - recruit, coordinate, and schedule testers; set up and manage tester training, field tester questions/concerns
    - Testing schedule – establish schedule for Summer and Fall testing, reserve Standards Lab, develop Testing matrix to ensure all relevant variables are tested (i.e., OS, clean/dirty machines, network connectivity, etc.)
    - Team Liaison – maintain contact with the other teams involved in the Fall Crush process to ensure that testing is relevant and accurate; usually accomplished through Core Team. Contact with other teams is usually informal and general in nature, though formal inter-team meetings may be scheduled to address specific concerns.
o **Bug tracking software admin** – This individual is responsible for the administration of the bug tracking software package used throughout the testing process. Responsibilities include:
   - Software selection – lead team efforts to evaluate previous year’s software and determine retention or replacement; evaluate potential replacement candidates; select replacement
   - Software management - install and configure software package (if new), install requisite updates/patches, manage requisite customizable items (field titles, field entries, etc.), and manage user accounts
   - Data management - archive previous year’s reports, ensure separation of current year’s data from previous year’s data to avoid confusion, migrate items flagged as “Suggestions for next year” to current database for reference

o **Script editor** – This individual is responsible for the scripts used for specific testing scenarios. Responsibilities include:
   - New script development – create new scripts needed for current year’s testing using the Testing matrix
   - Script editing – edit current scripts as necessary for relevant and accurate testing
   - Script distribution - ensure timely delivery of new/edited scripts to Testing Manager for scheduled testing
   - Archive scripts – maintain archival copies of scripts from previous years for reference

o **Beta CD Production Manager** – This individual is responsible for production of the Beta CDs used for testing. Responsibilities include:
   - Burn schedule – establish schedule for Beta CD burns for Summer and Fall testing and maintaining the entire Beta CD production process; the schedule will dictate the date-based Folder Structure detailed below
   - Folder structure – create the date-based folder structure used in CD burning; folder structure is the repository for successive generations of the Beta CD, including “Installer Only” and “Full” versions (i.e., developers put their most recent iteration of a beta CD in the appropriate folder and said folder contents are used by the CD
Production Manager to produce the Beta CDs for testing); structure is dictated by the Burn Schedule (see above); NOTE: should a corresponding folder be empty on a scheduled burn date, the contents of the next most recent folder are used to produce a beta CD

- Beta CD creation/distribution – ensure timely burn of Beta CDs and delivery to Testing Manager for scheduled testing

- Initiate and maintain contact/dialog with various other teams throughout Fall Crush process (Core, Design, Installer, Documentation) *(Feb - Jul)*
  - Contact with other teams (handled generally through Core Team) is usually informal and general in nature, though formal inter-team meetings may be scheduled to address specific concerns.
    - Core Team
      - Coordinate schedules with other teams
    - Installer Team- CD content
      - Review content with Installer team
      - Request input on testing parameters from Installer Team
    - Design Team- CD flow
      - Review CD flow with Design Team
      - Request input on testing parameters from Design Team
    - Documentation Team
      - Review current CD documentation
      - Determine any new content
      - Request input on testing parameters from Documentation Team

- Summer CD to press *(Jun)*
- Fall CD to press *(Aug)*

**Process Review**

- Process Update *(Jan)*
  - Review Crush process – evaluate the entire Crush process, noting successes and shortcomings
  - Lessons Learned – develop criteria for changes in next year’s Crush
  - Review Best Practices – evaluate Best Practices Documentation and determine necessary changes or alterations
Implement changes/improvements from last year

- Fall wrap-up (Oct)
  - Review Crush process – evaluate the entire Crush process, noting successes and shortcomings
  - Lessons Learned – develop criteria for changes in next year’s Crush
  - Review Best Practices – evaluate Best Practices Documentation and determine necessary changes or alterations
  - Determine changes/improvements for next year

Bug Tracking

- Bug tracking software (Feb)
  - Software selection – lead team effort to evaluate previous year’s software and determine retention or replacement; evaluate potential replacement candidates; select replacement
  - Software management - install and configure software package (if new), installing requisite updates/patches, and manage user accounts
  - Data management - archive previous year’s reports, ensure separation of current year’s data from previous year’s data to avoid confusion, migrate items flagged as “Suggestions for next year” to current database for reference

- Business rules – develop standard format for bug entries, establish procedures for testers to follow during testing, coordinate used script archiving (Feb- also TP)

- Data flow – Testing Team Manager (or designee) assign, edit, or condense bug entries from the testers themselves back to the Developers or other groups or individuals (i.e., Script Editor, Bug Tracking Admin, etc.) (Feb- also TP)

Script Development

- Begin Script Development (Mar)
  - Review previous year’s scripts – use archived copies to evaluate previous script effectiveness
  - Identify scripts needed – use testing matrix in script creation to ensure all relevant variables are tested (i.e., OS, clean/dirty machines, network connectivity, etc.)
  - Establish new parameters and changes
  - Incorporate changes into new scripts
• Ensure timely production of scripts and delivery to Testing Manager for scheduled testing
• Edit/adjust scripts as necessary for Installer CD testing (Apr)
• Edit/adjust scripts as necessary for Summer CD testing (May)
• Edit/adjust scripts as necessary for Fall CD testing (Jun)

Testing Community
• Identify tester candidate pool (Mar)
  o Internal TSS Pool – testers internal to TSS, used primarily for initial Installer and early Beta CD testing in controlled environment (Standards Lab), usually early in the Summer and Fall testing processes; focus on technical details including proper function of Installers, Application testing, proper function of Interface
  o External Pool – testers from outside TSS, used for general CD Testing in uncontrolled and unscripted (real-world) environment, usually later in the Summer and Fall testing processes; focus on over-all CD behaviour for end-user POV including ease of CD use, intuitive CD design, proper function of Applications after installation (NOTE- External testing still evaluates technical behaviour of the CD, but focus should be on how an end-user would experience the product.)
• Recruit candidates (Apr)
  o Internal TSS Pool
    ▪ Recruited by email to TSS Department Heads requesting individuals available for testing; further contact to be directly with the individuals proposed by the Dept. Heads
    ▪ Time commitment expectations should be clearly stated (number of testing sessions anticipated, session duration of 1 ½ to 2 hours each, etc.)
  o External Pool
    ▪ Hand-picked by Testing Team from LSP community and other groups or individuals deemed appropriate by the Testing Team
    ▪ Recruitment by email to specific individuals determined by above criteria
    ▪ If time allows, open External Pool to more general audience (SUG posting)
• Time commitment expectations should be clearly stated (number of testing sessions anticipated, session duration of 1 ½ to 2 hours each, etc.)

• Develop training materials for testers (Mar)
  o Overview presentation on use of bug tracking software
  o Printed Business Rules for bug submission format
  o Standards Lab orientation (location of Lab, use of status markers, etc.)

• Train testers (Apr)
  o Schedule tester training
  o Inform Testing Pool of training time and location
  o Distribute printed materials, Standards Lab orientation, identify who testers go to with questions during testing

• Reward testers for Summer testing (Jun)
  o Pizza usually provided during end of testing process

• Reward testers for fall testing (Jul)
  o Pizza usually provided during end of testing process

Beta CD Production

• Establish CD burn schedule (summer and fall) (Mar) – schedule of Beta CD burning, dictates folder structure detailed below; Beta CDs to be produced as scheduled directly from contents of appropriate Burn Folders

• Establish CD burn folder structure (Mar) – folder structure is the repository for successive generations of the Beta CD, including “Installer Only” and “Full” versions (i.e., developers put their most recent iteration of a beta CD in the appropriate folder and said folder contents are used by the CD Production Manager to produce the Beta CDs for testing); structure is dictated by the Burn Schedule (see above); NOTE: should a corresponding folder be empty on a scheduled burn date, the contents of the next most recent folder are used to produce a beta CD folder structure used by Installer Team as repository for successive generations of Installers; entire folder structure should be determined in March and followed throughout the CD Production process

• Installer CD Burn begins (Apr) – creation of “Installer Only” Beta CD to be tested by Internal Testers

• Summer CD burn begins (May) – creation of “Full” Summer Beta CD, including Interface and Installers, primarily tested by Internal Testers
• Fall CD burn begins (Jul) - creation of “Full” Fall Beta CD, including Interface and Installers, primarily tested by both Internal and External Testers

**Testing Process**

• Business rules – develop standard format for bug entries, establish procedures for testers to follow during testing, coordinate used script archiving (Feb- also BT)

• Data flow – Testing Team Manager (or designee) assign, edit, or condense bug entries from the testers themselves back to the Developers or other groups or individuals (i.e., Script Editor, Bug Tracking Admin, etc.) (Feb- also TP)

• Develop testing schedule (Mar)
  o Schedule Summer/Fall testing back-to-back

• Reserve Standards Lab (Mar)

• Installer CD Testing begins (Apr)
  o Testing of Installers only, without CD Interface to ensure proper base Installer functionality; will cover individual application installers as well as integrated “Master” Installer when available

• Summer CD Testing Begins (May)
  o Testing of entire CD, including both CD Interface and Application Installers, as well as Application testing for functionality

• Fall CD testing begins (Jul)
  o Testing of entire CD, including both CD Interface and Application Installers, as well as Application testing for functionality

**External Events**

• Core Team Kick-off meeting (Jan) – coordinates entire Crush process

• Design Team Kick-off (Feb) – develops CD design

• Installer Team Kick-off (Feb) – develops Application installers for both platforms

• Documentation Team Kick-off (Mar) – evaluates all documentation related to CD, including web and printed materials
III Calendar Outline

January
- Process Update (PR)
  o Review Crush process
  o Lessons Learned
  o Review Best Practices
    o Implement changes/improvements from last year
- Core Team Kick-off meeting (EE)

February
- Design Team Kick-off (EE)
- Installer Team Kick-off (EE)
- Testing Team Kick-off (TTM)
- Establish timeline for testing procedure (TTM)
- Assign tasks to team members (TTM)
  o Testing Manager
    - Data flow
    - Manage testers
    - Testing schedule
    - Team liaison
  o Bug tracking software admin
  o Script editor
  o Test CD Production Manager
- Initiate contact with other teams for consultation throughout Fall Crush (Core, Design, Installer, Documentation) (TTM)
- Bug tracking software (BT)
  o Review previous year’s software
  o Determine retention or replacement
  o Evaluate/test new software candidates
  o Set implementation schedule
- Establish business rules for procedures (BT/TP)
  o Develop data flow for raw data
  o Determine format for bug tracking entries

March
- Documentation Team Kick-off (EE)
- Develop testing schedule (TP)
  o Scheduled Summer/Fall testing back-to-back
- Establish CD burn schedule (summer and fall) (BCP)
- Establish CD burn folder structure (BCP)
• Reserve Standards Lab (TP)
• Begin Script Installer (SD)
  o Review previous year’s scripts
  o Identify scripts needed
  o Establish new parameters and changes
  o Incorporate changes into new scripts
• Develop training materials for testers (TC)
• Identify tester candidate pool (TC)

April
• Maintain contact/dialog with various teams (Core, Design, Installer, Documentation) (TTM)
  o Core Team
    ▪ Coordinate schedules with other teams
  o Installer Team- CD content
    ▪ Review content with Installer team
    ▪ Request input on testing parameters from Installer Team
  o Design Team- CD flow
    ▪ Review CD flow with Design Team
    ▪ Request input on testing parameters from Design Team
  o Documentation Team
    ▪ Review current CD documentation
    ▪ Determine any new content
    ▪ Request input on testing parameters from Documentation Team
• Recruit candidates (TC)
• Train testers (TC)
• Installer CD Burn begins (BCP)
• Installer CD Testing begins (TP)
• Edit/adjust scripts as necessary for Installer CD testing (SD)

May
• Maintain contact/dialog with various teams (Core, Design, Installer, Documentation) (TTM)
  o Core Team
  o Installer Team
    ▪ Maintain bug data flow
    ▪ Changes
  o Design Team
    ▪ Maintain bug data flow
    ▪ Changes
• Documentation Team
  ▪ Maintain bug data flow
  ▪ Changes
• Summer CD burn begins (BCP)
• Summer CD Testing Begins (TP)
• Edit/adjust scripts as necessary for Summer CD testing (SD)

**June**

- Maintain contact/dialog with various teams (Core, Design, Installer, Documentation) (TTM)
  - Core Team
  - Installer Team
    ▪ Maintain bug data flow
    ▪ Changes
  - Design Team
    ▪ Maintain bug data flow
    ▪ Changes
  - Documentation Team
    ▪ Maintain bug data flow
    ▪ Changes
- Reward testers for Summer testing (TC)
- Summer CD to press (TTM)
- Edit/adjust scripts as necessary for Fall CD testing (SD)

**July**

- Maintain contact/dialog with various teams (Core, Design, Installer, Documentation) (TTM)
  - Core Team
  - Installer Team
    ▪ Maintain bug data flow
    ▪ Changes
  - Design Team
    ▪ Maintain bug data flow
    ▪ Changes
  - Documentation Team
    ▪ Maintain bug data flow
    ▪ Changes
- Fall CD burn begins (BCP)
- Fall CD testing begins (TP)
- Reward testers for fall testing (TC)
August
  • Fall CD to press (TTM)

October
  • Fall wrap-up (PR)
    o Review Crush process
    o Lessons Learned
    o Review Best Practices
    o Determine changes/improvements for next year