Push Testing Protocol for ELN

This is meant to be a list of the most important features to test regardless of what the current push touches. Be sure to read through this entire document to verify you have the proper settings enabled for the users you plan sign into the site as well as any necessary files and email notification set. When any abnormalities are discovered consult production to verify the issue is not currently there as well. Characterize what is anomalous about the behavior and add it to YouTrack. Tag for current push if it is NOT in production. If the issue is currently in production be sure to consult about how to tag the issue. Testing should occur in IE 11, Edge, Firefox, and Chrome. Some features are unique to individual browser and they may be noted here. Pro tip: Start testing in IE 11, it tend to be the most difficult browser to diagnose and most often has conflicts and issues.

1. Create a new Project
   1. Name it for the Push
   2. Check that all visibility and functionality is as expected
2. Create a new notebook in model every few push cycles
   1. Be sure to list all pushes the notebook contains in the description section
   2. Name it uniquely with an indication of the year (what quarter it is, time of year e.g. Fall 2017) and the tester (your name) if you are using a default user (Joe Chemist, Jane Biologist, etc.)
   3. Be sure all notebook functionality and visibility is what is expected
3. When creating experiments for push testing follow the following format
   1. Name the experiment with the browser you are testing in (IE, Chrome, etc.)
   2. To the description indicate what Push you are testing for (e.g. Push Lacks)
4. In the experiments:
   1. In chemistry experiments:
      1. Upload the same reaction for each browser to minimize variables.
         1. In browsers with ChemDraw and MarvinJS be sure to create one experiment with an upload reaction and one with a reaction drawn natively in the browser for each tool
            1. This will create 3 experiments in any browser with both ChemDraw and MarvinJS available
            2. Be sure to use the same reaction for both drawing tools and all browsers
            3. Modify you experiment description to include ChemDraw or Marvin JS designation if testing either functionality
            4. Be sure to test any browser specific feature

Live edit in Chrome for reaction editing

Plug-in capability for ChemDraw 16 or older in Firefox ESR 52

Plug-in capability in ChemDraw 17 in IE 11

* + - * 1. Be sure to test any push or support specific reagents or structures
    1. When adding by CAS number be sure to test
       1. Reactant, reagent, solvent
       2. A simple reagent like DMF (68-12-2) and a catalyst like GI (172222-30-9)
       3. Any known problem reagents associate with support or the push
    2. Be sure to test the stoichiometry table:
       1. Be sure to check values are auto filled when adding a mass or mole value including CAS or Barcode addition to the table
          1. This includes that when the user adds values that conflict (a mass that doesn’t work with the equivalents to the limiting reagent for instance) the software overwrites the OLDER value not the most recently added
       2. the values persist even when things are changes or added, and that the stoichiometry values change when the structure is changes (MW especially)
       3. Be sure that grouped reagents like catalysts and salts display the correct MW and are correctly grouped. This includes that their names reflect the salt or components of the catalyst
       4. Register the product from the stoichiometry table in registration and add the batch id to the experiment
       5. Be on the lookout for duplicate tabs, missing tabs, values that seem incorrect, etc.
    3. Add text to the preparation section
       1. Be sure to use at least TWO templates in this section
    4. Add Demo attachments
       1. This includes CDX, PowerPoint and Text file
    5. Always check the PDF version of these experiments to be sure they reflect the changes you are making
       1. Reactions scheme in the PDF
       2. Stoichiometry data in the PDF
       3. Attachments reflected
    6. Be sure to periodically check the audit trail of experiment as it is created to verify information is reflected accurately there
    7. Copy your experiment:
       1. Check the PDF and verify all information transferred
       2. Make an obvious change to the limiting reagent in the reaction scheme
          1. Verify this change is saved in the reaction scheme
          2. Verify the stoichiometry table updated
          3. Verify the PDF reflects this change you made
       3. Verify a link to the original experiment is present
    8. Use the Next step function
       1. Follow steps 3a (i-vii) for this newly created experiment
    9. Be sure to test any specific workflows (CT-demo, etc.)
       1. When testing DS workflow be sure to add reagent using both the Barcode selector and “+” option
       2. Create a new container with the Product in inventory
       3. Verify all containers were decremented/created in inventory and that all expected ELN links are reflected
  1. In Biology/Concept/Analytical experiments:
     1. Add text to all CK editor sections
        1. Test all buttons (timestamp, subscript, etc.) this mean click on every single one!
        2. Add at least one template where available
        3. Test copying and pasting images from word, the web, and an image visualization software on your computer
           1. As a note you may see different behavior browser to browser
        4. Test adding a table by insert and by copy and pasting
     2. Add Demo attachments
        1. At minimum add a PowerPoint, Word, PDF, JPEG, PNG, Excel, and CDX. You should add something that cannot be visualized, a zip or instrument file can work for this
           1. Be sure the names of the attachment can be edited upon upload and after saving
           2. Be sure the description can be edited
           3. Test both drag and drop and the file upload button
           4. Test rearranging the order of the attachments
     3. Add at least 2 notes to the notes table
        1. Be sure to click on every button in the CK editor!
        2. Be sure timestamps and tables are inserted properly
        3. Test special characters
     4. Test Linking
        1. Add an experiment link
        2. Add a Project link
        3. Add a registration object link
     5. Always check the PDF version of these experiments to be sure they reflect the changes you are making
        1. Are all attachments reflected?
        2. Is all data formatted correctly, especially tables and images?
     6. Be sure to periodically check the audit trail of experiment as it is created to verify information is reflected accurately there
     7. Be sure to test any Push related features or support issues as needed
     8. Test the copy feature, be sure all information is reflected in both views
  2. Test Custom experiments
     1. VBU experiment
        1. Run test scripts
        2. Test user in multiple groups
        3. Test adding collaborator
        4. Test removing collaborator
  3. Test signing and closing/witnessing
     1. Test signing and closing in all browsers
        1. Normal workflow
           1. PDF view

With a witness selected (use a consistent witness throughout testing)

Without a witness selected

Select a witness after the signing and closing is complete (assuming nothing abnormal occurs)

* + - * 1. Experiment view

With a witness selected (use a consistent witness through testing)

Without a witness selected

* + - 1. SAFE
      2. SSO
      3. SAML
    1. Test witnessing in the same browser as signing for each experiment
       1. Test witnessing from different places
          1. Select from the witness requests section on the dashboard
          2. Select from the notification link in the notification section on the dashboard
          3. Select from an email notification
       2. Test rejecting a request
          1. Test a chemistry and a biology experiment
          2. Resign the experiment
          3. Accept the request the second time it is signed and closed
       3. Verify all PDFs look as expected
          1. Verify short PDF button works from

Notebook TOC

In the experiment page

1. Test Advanced Search
   1. Test Structure searching in
      1. Chrome with Live Edit
         1. Test substructure and exact structure search
         2. Test searching for an old experiment and new experiment
         3. Test filters for Products and reactants
         4. Verify all expected results are found
      2. Firefox/IE 11 with the plug-in
         1. Test substructure and exact structure search
         2. Test searching for an old experiment and new experiment
         3. Test filters for Products and reactants
         4. Verify all expected results are found
   2. Test text searching
      1. Test that all expected results come back
         1. Notebook searching
         2. Project searching
         3. User name
         4. Attachments
   3. Test Drop Down Search
      1. Status
   4. Test Date field
      1. Last saved
      2. Date created