External - MIT : MIT Plugin Release Notes v1.0.1 (073008)

1 - Overview

1.1 - Table of Contents

✅ Completed Task/Goal		ℹ️ Relevant Information	
⚠️ Important Information		❌ Not Included or Canceled	
➕ Information Added		⭐ Information Updated	

1.2 - Purpose

This document describes the deliverables and installation procedures for the **MIT Custom**

Search/Browse Plugin v1.0.0.

ℹ 1.3 - Scope

This document is intended to communicate the steps and provide an understanding of the effort required within MIT to install the plugin within a Confluence wiki instance (release version 2.8.1). This document also provides sufficient information and detail to allow MIT Quality Assurance to design and implement a test plan (if desired), to allow MIT Operational groups to assess the impact on production systems, and to provide MIT Project Management with insight into the planning and implementation requirements and options for deployment and usage.

2 - Deliverables

✅ 2.1 - Confluence Page Hierarchy Control Customizations

2.1.1 - Background

When moving a page from one space to another, or changing the parent of a page within a space, Confluence 2.8.x natively displays a Javascript tree-based control showing all pages in that space and allowing dynamic drag-and-drop of pages. This control natively fails for spaces with thousands of pages existing at the same hierarchical level.

2.1.2 - Deliverable Overview

Appfire has developed a deployable plugin-based solution for MIT that disables, hides and/or replaces the dynamic Tree-based page hierarchy control features in Confluence 2.8.1.

2.1.3 - <u>Feature</u>: Disable Tree-based page control in "Browse Space"

Under the "Browse Space" section of a Confluence space, within the "List Pages/Pages" tab, the goal was to disable and hide the option to view pages as a dynamic "Tree". To achieve this goal Appfire has implemented the following solutions:

1. ✅ Remove the 3rd text link for the "Tree" view (as well as the "|" before it) underneath the Browse Space 'tab navigation'.

   -
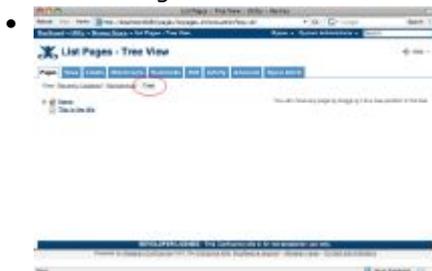
   Diagram 2.1a

2. ✅ Programmatically redirect users who navigate directly to the 'Tree' view of a space with this URL
   "/pages/listpages-dirview.action?key=*spacekey*", ... instead to the 'Alphabetical' view of the
   same space using this alternate URL reference
   "/pages/listpages-alphaview.action?key=*spacekey*".

   -

   Diagram 2.1b

- ℹ️ Note that the features outlined above should be usable in any space, even if that space has a
  modified stock UI theme applied, or an 'Adaptavist Theme Builder' UI theme applied (unless
  modifications have otherwise been made to the associated navigational features).

2.1.4 - <u>Feature</u>: Replace Tree-based page control in "Add" and "Edit" Page Modes

To achieve this goal Appfire has implemented the following solutions:

1. ✅ Disable and remove the dynamic Tree-based page hierarchy control feature available in
   Confluence 2.8 within the "Add" and "Edit" modes of all pages as seen in the 'Location:' subsection.

   -

   Diagram 2.1c

2. ✅ The removed Tree-based control was then replaced with the old dropdown-based "move page"
   hierarchy control available within Confluence 2.7 (and earlier releases).

   -

   Diagram 2.1d

   - ℹ️ Note that the **mini 'page search' icon button** operates in the same fashion as in previous
     Confluence versions and requires the user to search for the desired parent page title.
     - ° ⚠️ Note however that the Parent page text field is now 'read only' and requires the use of
       the mini 'page search' icon button to search for a parent page.
   - ℹ️ Note that the **'Done' link** above the subsection operates in the same fashion as in previous
     Confluence versions, where when clicked, the "Location" section is colapsed and the **'Done'
     link** is replaces with an **'Edit' link**.
     - ° ⚠️ Note however that within this release, the path to the current (or newly selected)

page is no longer displayed next to the 'Location:' subsection title. However, the current page location is easily discerned by expanding the "Location" section or by viewing the cookie trail at the top of the page.

- ⚠️ Note that to implement this feature goal, source intervention was required resulting in the modification of 4 native confluence source files (outlined here). This approach was validated through discussions with Atlassian's team. Please contact Appfire with any additional related questions.
- ℹ️ Note that the features outlined above should be usable in any space, even if that space has a modified stock UI theme applied, or an 'Adaptavist Theme Builder' UI theme applied (unless modifications have otherwise been made to the associated navigational features).

2.1.5 - <u>Feature</u>: Enable Admins to Disable Feature 2.1.3 in Selected Spaces

To achieve this goal Appfire has implemented the following solutions:

1. ✅ By default, feature 2.1.3 (removal of tree view in browse space) is implemented for all new and existing spaces in the Confluence instance with this custom plugin installed.
2. ✅ This feature 2.1.5 however provides the ability to override features 2.1.3 **at the space-level** for any space by applying a 'space label' titled "**show_tree**" within that space's 'Space Admin' section.

-

Diagram 2.1e

- ⚠️ Note however that feature 2.1.4 (removal of tree view in add & edit page modes) will remain implemented by default for **all pages in all spaces**, regardless of if 2.1.3 has been overridden on a space or not.
- ℹ️ Note that the features outlined above should be usable in any space, even if that space has a modified stock UI theme applied, or an 'Adaptavist Theme Builder' UI theme applied (unless modifications have otherwise been made to the associated navigational features).

✅ 2.2 - Confluence Search Control Customizations

2.2.1 - Background

MIT desires that search results from a custom search field be displayed within a standard wiki page format rather than through Confluence's default search results UI.

2.2.2 - Deliverable Overview

Appfire has developed a deployable plugin-based solution for MIT that will:

1. Enable the insertion of a custom executable search box on any page in the Confluence instance.
2. Search results output from this custom search box will then be displayed within a standard wiki page format (rather than through Confluence's default search results UI).
3. This customized search results page will also have an optional custom sidebar box component, deployed as part of the page's theme, that will construct a set of 'related search URLs' using the same search terms used to display search results on that page.

2.2.3 - <u>Feature</u>: Custom macro-based search box

To achieve this goal Appfire has implemented the following solutions:

1. ✅ The 1st of 3 custom search-oriented macros titled **{custom-search-field}**, when deployed on a Confluence page, will insert a custom executable 'search box' (with a search button) on that page.
   -
     Diagram 2.2a
   - ℹ️ This macro should be deployable on any page within the entire Confluence instance.
2. ✅ This custom macro supports a handful of custom macro parameters, eg:
   {custom-search-field:resultPage=*V*|resultSpace=*W*|searchSpaces=*X*|alsoSearch=*Y*|buttonText=*Z*}
     - The *V* variable within the '**resultPage**' parameter is the single Page Title of the destination search result page which contains the other 2 search-oriented custom macros.
     - The *W* variable within the '**resultSpace**' parameter is the single Spacekey of the space which contains the destination search results page (which itself contains the other 2 search-oriented custom macros).
     - The *X* variable within the '**searchSpaces**' parameter is the Spacekey(s) of the space(s) within which search results should be collected from.
       ° For example, if 2 spacekey variables are defined within the 'searchSpaces' parameter of a {custom-search-field} macro as 'MIT' and 'APPFIRE', then the resulting search result page should only contain search results that exist within the 'MIT' and 'APPFIRE' spaces.
       ° Note that multiple spacekeys must be separated by a 'comma', eg:
         searchSpaces=key1,key2,key3.
     - The *Y* variable within the '**alsoSearch**' parameter is a list of additional hidden search terms which should also be executed within the same search in addition to the search string entered by the user.
       ° Note that multiple hidden search terms must be separated by a 'comma', eg:
         alsoSearch=term1,term2,term3.
     - The *Z* variable within the '**buttonText**' parameter is the text that should be displayed within the search button itself.
3. ✅ When a user enters a search string into the custom 'search field' and clicks the associated 'search button', the {custom-search-field} macro does not direct the user to the standard Confluence search result page, and instead directs the user to the 'custom search results wiki page' defined within the *spacekey* and *pagetitle* variables within the macro's 'resultSpace' and 'resultPage' parameters respectively.
     - The associated search results are then rendered within the 'custom search results wiki page' by passing the user-entered search string to the {custom-search-results} and {custom-search-links} macros deployed within the search results page as outlined within features 2.2.4 & 2.2.5 below.
4. ✅ As requested by MIT, this custom search solution passes (1) the 'user-entered search terms', (2) the 'hidden search terms' and (3) the 'list of spaces to search within' to the custom search results page as URL-encoded parameters in the URL string.

- ℹ️ The features outlined above should be usable in any space (or in a Theme Builder Panel), even if a space has a modified stock UI theme applied, or an 'Adaptavist Theme Builder' UI theme applied

(unless modifications have otherwise been made to the associated search features).

2.2.4 - <u>Feature</u>: Custom macro-based search result list

To achieve this goal Appfire has implemented the following solutions:

1. ✅ The 2nd of 3 custom search-oriented macros titled **{custom-search-results}**, when deployed on a Confluence page, will insert a formatted list of search results on that page (assuming that search variables have been successfully passed into it from the {custom-search-field} macro).
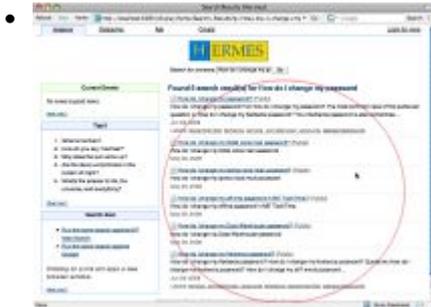
   -
   Diagram 2.2b
   - ℹ️ Note that Diagram 2.2b above leverages the default 'search results' rendered view generated by the native Confluence {search:query=*searchterm*} macro. (The new functionality for this customized search result feature-set differs however, as explained below.)
   - ⚠️ As requested by MIT, note that for this solution <u>ONLY **PAGE** CONTENT TYPES</u> are being returned as part of the search results. (eg: comment, blogpost, attachment, userinfo, or spacedesc will <u>NOT</u> be displayed as part of search results.)
   - ℹ️ This macro should be deployable on any page within the entire Confluence instance.
2. ✅ This custom macro supports a handful of custom macro parameters, eg:
   {custom-search-results:defaultMessage=*T*|maxLimit=*U*|hideSpace=*V*|hideSummary=*W*|hideLabels=
   - The *T* variable within the '**defaultMessage**' parameter sets message to be displayed in place of search results when no search has yet been executed.
     - ° ℹ️ Note that if this parameter is not defined within the macro, the default message will be displayed as follows:
       - `- When a search is conducted, this area will display a list of resulting`
         `pages that match the search criteria.`
   - The *U* variable within the '**maxLimit**' parameter sets a limit to the number of search results displayed.
     - ° ℹ️ Default is set to show all results with no limit.
     - ° ⚠️ Only positive integers are valid variables.
   - The *V* variable within the '**hideSpace**' parameter allows the user to hide the spacekey from displaying within each rendered search result row.
     - ° Rendered view for a search row when hideSpace=false:

       Diagram 2.2c
     - ° Rendered view for a search row when hideSpace=true:

How do I change my password?
How do I change my password? Q: How do I change my password? The most common case of this particular question is: How do I change my Kerberos password? Your Kerberos password is also sometimes ...
Jun 03, 2008
Labels: department/ist, kerberos, service_provider/user_accounts, category/accounts

Diagram 2.2d

- ° ⚠️ Only the values of "true" or "false" are valid variables.
- The **W** variable within the '**hideSummary**' parameter allows the user to hide the Page Summary description from displaying within each rendered search result row.
    - ° Rendered view for a search row when hideSummary=false:

How do I change my password? (Public)
How do I change my password? Q: How do I change my password? The most common case of this particular question is: How do I change my Kerberos password? Your Kerberos password is also sometimes ...
Jun 03, 2008
Labels: department/ist, kerberos, service_provider/user_accounts, category/accounts

Diagram 2.2e

    - ° Rendered view for a search row when hideSummary=true:

How do I change my password? (Public)
Jun 03, 2008
Labels: department/ist, kerberos, service_provider/user_accounts, category/accounts

Diagram 2.2f

    - ° ⚠️ Only the values of "true" or "false" are valid variables.
- The **X** variable within the '**hideLabels**' parameter allows the user to hide the Page Labels list from displaying within each rendered search result row.
    - ° Rendered view for a search row when hideLabels=false:

How do I change my password? (Public)
How do I change my password? Q: How do I change my password? The most common case of this particular question is: How do I change my Kerberos password? Your Kerberos password is also sometimes ...
Jun 03, 2008
Labels: department/ist, kerberos, service_provider/user_accounts, category/accounts

Diagram 2.2g

    - ° Rendered view for a search row when hideLabels=true:

How do I change my password? (Public)
How do I change my password? Q: How do I change my password? The most common case of this particular question is: How do I change my Kerberos password? Your Kerberos password is also sometimes ...
Jun 03, 2008

Diagram 2.2h

    - ° ⚠️ Only the values of "true" or "false" are valid variables.
- The **Y** variable within the '**iconSpaces_N_**' parameter allows the user to define one or more spacekeys (separated by a 'comma' when needed), which when used in tandem with the associated 'iconImage_N_' parameter will display a custom mini icon image for all search result pages originating from those spaces, instead of the native page Cannot resolve external resource into attachment. mini icon in front of the page title link.
    - ° ℹ️ Note that *N* is the number of the iconSpaces/iconImage parameter pairing (eg: 1, 2, 3 etc.)
    - ° ℹ️ Note that multiple iconSpaces_N_/iconImage_N_ parameter pairing can be defined within a single macro instance
- The **Z** variable within the '**iconImage_N_**' parameter allows the user to define an encoded full URL path to a custom mini icon image, which when used in tandem with the associated 'iconSpaces_N_' parameter will display that custom mini icon image for all search result pages originating from those spaces, instead of the native page Cannot resolve external resource into

<u>attachment. mini icon in front of the page title link</u>.
- ° ⚠️ Note that *N* is the number of the iconSpaces_N_/iconImage_N_ parameter pairing (eg: 1, 2, 3 etc.)
  - - Note that multiple iconSpaces_N_/iconImage_N_ parameter pairing can be defined within a single macro instance
- ° Rendered view for a search row when an iconSpaces_N_/iconImage_N_ parameter pairing is <u>NOT</u> defined

Diagram 2.2i
- ° Rendered view for a search row when an iconSpaces_N_/iconImage_N_ parameter pairing <u>IS</u> defined (with a custom fireball icon)

Diagram 2.2j
- 🔵 Note that the Spaces where search results are pulled-from should be defined by the 'searchSpaces' parameter within the {custom-search-field} macro, and <u>NOT</u> by any parameters within this {custom-search-results} macro.
- 🔵 Note that the 'hideSpace', 'hideSummary', 'hideLabels', 'iconSpaces_N_' and 'iconImage_N_' parameters can be able to be used in any combination, eg:
  - ° `hideSpace=false|hideSummary=false|hideLabels=false|iconSpaces1=appfire,mit,hermes|iconI`
  - ° `hideSpace=true|iconSpaces1=appfire,mit,hermes|iconImage1=`http://wiki.appfire.com/images
  - ° `hideSpace=true|hideSummary=true|hideLabels=false`
  - ° `hideSpace=true|hideSummary=true|hideLabels=true`
  - ° etc ...
3. ✅ When a valid variable for the '**maxLimit**' parameter is set, and the universe of search results exceeds the limit set within 'maxLimit', a link is then displayed under the bottom result row titled "**Show All**"
   -
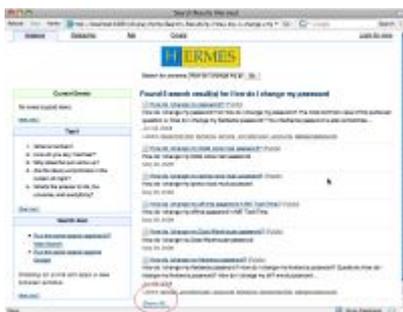
Diagram 2.2k
- ⚠️ When "Show All" is clicked by the user, the same exact search (as is currently displayed) is then automatically re-run and the results are re-displayed on the same page as if the 'maxLimit' parameter was not defined within the {custom-search-results} macro - (ie: the entire search result universe is displayed and NOT limited by the value set within the 'maxLimit' parameter).

2.2.5 - <u>Feature</u>: Custom macro-based 'related search links' list

To achieve this goal Appfire has implemented the following solutions:

1. ✅ The 3rd of 3 custom search-oriented macros titled **{custom-search-links}**, when deployed on the same page that contains a {custom-search-results} macro, will insert a formatted list of 'alternate search links' on that page (assuming that search variables are successfully passed into it from an originating {custom-search-field} macro).
   -
   Diagram 2.2c
   - ℹ️ This macro should be deployable on any page within the entire Confluence instance.
2. ✅ This custom macro supports a handful of custom macro parameters, eg:
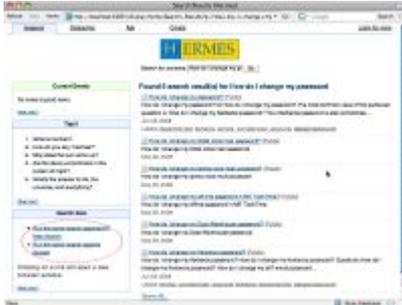
   {custom-search-links:defaultMessage=A|target=B|linkTitle_N_=X|urlPrefix_N_=Y|urlSuffix_N_=Z}
   - The *A* variable within the '**defaultMessage**' parameter sets message to be displayed in place of links when no search has yet been executed.
     - ℹ️ Note that if this parameter is not defined within the macro, the default message will be displayed as follows:
       - `When a search is conducted, this section will display alternate links to conduct the same search against other search engines.`
   - The *B* variable within the '**target**' parameter defines the HTML anchor tag 'target' parameter for each link.
     - ℹ️ eg: `target=_blank` or `target=_top`
     - ⚠️ Only the values of "_blank", "_self", "_top" or "_parent" are valid variables.
   - The *X* variable within the '**linkTitle_N_**' parameters define the rendered title of the associated hyperlink as it should be displayed on the search result page.
     - ⚠️ Note that *N* is the number of the linkTitle_N_/urlPrefix_N_/urlSuffix_N_ parameter grouping (eg: 1, 2, 3 etc.)
       - Note that multiple linkTitle_N_/urlPrefix_N_/urlSuffix_N_ parameter groupings can be defined within a single macro instance.
   - The *Y* variable within the '**urlPrefix_N_**' parameters define the encoded URL string **<u>prefix</u>** of the search string prior to the relevant search terms.
     - ℹ️ eg: http://www.google.com/search?q= or http://search.yahoo.com/search?p=
     - ⚠️ Note that *N* is the number of the linkTitle_N_/urlPrefix_N_/urlSuffix_N_ parameter grouping (eg: 1, 2, 3 etc.)
       - Note that multiple linkTitle_N_/urlPrefix_N_/urlSuffix_N_ parameter groupings can be defined within a single macro instance.
     - ⚠️ Any normal string of URL characters will be accepted for this parameter.
   - The *Z* variable within the '**urlSuffix_N_**' parameters define the encoded URL string **<u>suffix</u>** of the search string after the relevant search terms.
     - eg: `&ie=utf-8&oe=utf-8&aq=t&rls=org.mozilla:en-US:official&client=firefox-a` or `&y=Search&fr=&ei=UTF-8`
     - ⚠️ Note that *N* is the number of the linkTitle_N_/urlPrefix_N_/urlSuffix_N_ parameter grouping (eg: 1, 2, 3 etc.)
       - Note that multiple linkTitle_N_/urlPrefix_N_/urlSuffix_N_ parameter groupings can be defined within a single macro instance.
     - ⚠️ A value is <u>NOT</u> required for this parameter.

- ⚠️ If any 1 parameter of a set of 3 linkTitle_N_/urlPrefix_N_/urlSuffix_N_ parameters is defined, a valid variable for the other 2 parameters in the same *N* group is also required.

- ℹ️ When rendered in HTML on the search result page, the links are formatting into a standard HTML Unordered List with an object ID of "custom-search-links".
  -
```
<ul id="custom-search-links">
<li> link 1 hyperlink code </li>
<li> link 2 hyperlink code </li>
</ul>
```

- ℹ️ The features outlined above should be usable in any space (or in a Theme Builder Panel), even if a space has a modified stock UI theme applied, or an 'Adaptavist Theme Builder' UI theme applied (unless modifications have otherwise been made to the associated search features).

3 - Installation

ℹ️ 3.1 - Requirements

- **Software Platform: Atlassian's Confluence Version 2.8.1**
- **Confluence Plugins: The native Confluence {search} macro should be installed and enabled**

ℹ️ 3.2 - Steps to Deploy the Custom Plugin

1. Stop the existing Confluence installation
2. Copy the [mit-custom-search-browse-plugin-v1.0.0.jar](#) plugin file to the destination Confluence installation under the `confluence/WEB-INF/lib` directory.
   - This is inside the Confluence installation itself, not the individually configured ConfluenceHome directory. [More details available here](#).
3. Replace the following 4 native Confluence source files with the modified versions of each file [available here](#) (Please be sure to backup a copy of the originals):
   - `/includes/js/page-location.js`
   - `/pages/includes/page-location-form.vm`
   - `/template/xhtml/pagelist.vm`
   - `/users/pagepicker.vm`
4. Restart the Confluence instance
5. Apply the following minor modification to the default "space.vmd" code within the Crowd Administrator
   a. Navigate to the Crowd Administrator toolset
   b. In the left navigation, click on the `Layouts` link
   c. On the "Edit Site Layouts" page, click on the `Create Custom` link next to the `Space Layout` decorator option
   d. Identify the following block of native code
      -
```
#if ($velocityCount != 1) | #end
    #if ($mode == $item.key)
      <span style="padding: 5px; background-color:
#f0f0f0;"><b>$item.label.getDisplayableLabel($req, $action.webInterfaceContext)</b></span>
    #else
```

```
        <a href="$item.link.getDisplayableUrl($req,
$action.webInterfaceContext)">$item.label.getDisplayableLabel($req,
$action.webInterfaceContext)</a>
#end
```

e. Replace that block of code with the following slightly modified block of code

-
```
#if ($item.key != 'list-content-tree' || $MITHelper.isShowTreeLabelFound($req) == 'true')
    #if ($velocityCount != 1) | #end
      #if ($mode == $item.key)
        <span style="padding: 5px; background-color:
#f0f0f0;"><b>$item.label.getDisplayableLabel($req, $action.webInterfaceContext)</b></span>
      #else
        <a href="$item.link.getDisplayableUrl($req,
$action.webInterfaceContext)">$item.label.getDisplayableLabel($req,
$action.webInterfaceContext)</a>
   #end
#end
```

f. Click the "Save" button

6. Validate that the new plugin is available within Administration -> Plugins as "**MIT Custom Search/Browse Plugin v1.0.0**" and that all modules are "enabled".

7. Validate that the new plugin is functioning properly:
   a. Navigate to an existing Confluence space
   b. Navigate Browse Space -> Pages within that space
   c. Verify that the "Tree" view option for pages is no longer accessible (by default)

8. Validate that the source intervention modifications are functioning properly:
   a. Navigate to an existing wiki page
   b. Click EDIT as if to modify the document
   c. Scroll down to the "Location" section of the page
   d. Click to edit the location of the page and verify that the Tree navigation feature is no longer available, and is instead replaced by the old Confluence 2.7 dropdown method for selecting a parent page.

9. Installation Complete

4 - Defect Resolutions

1. **Missing search results**
   - The associated velocity file was throwing a `nullpointerexception` because it was not getting the correct search object.
   - Due to this, Confluence was not rendering any results on the page.
   - As a resolution, we are now checking if the summary is 'null'

2. **Search Result Duplication**
   - After revisiting and properly setting the `searchBean.setPaginationSupport`, which is the Confluence native pagination support method, the issue disappeared. When it was not there, the result returned was 10.

3. **Inconsistent Search Relevance**
   - We are now using Confluence's default relevance capabilities.
   - To do this, the originally leveraged search algorithm was changed.
   - Now instead of searching through each space and then building the search list, in the new 1.0.1 release, we do a site search first and then filter in pages whose 'spacekeys' are defined as variables within the `searchSpaces` macro parameter.