View Job Filters

What is the "View Job Filters" plugin?

This plugin provides a number of filters that you can "chain" together to provide a much easier way to create views to organize hundreds of jobs. For each filter type, you can add multiple filters, and combine them with filters of other types. For example, you can create a view of all your nightly jobs except those not under any SCM. In a nutshell, this plugin provides the following:

- Create view to manage hundreds of jobs by mixing-and-matching filters to include exactly the jobs you want
- Use regular expressions to match against your choice of
  - Job name or description
  - Job's SCM Configuration path
  - Email recipients for build
  - Maven configuration for the job
  - Chron Trigger
- Filter Parameterized Jobs by their configured parameters
- Create views relevant to the logged in user
- Also filter by
  - SCM Type
  - Job Type
  - Job or Build Status, or Status trends and triggers over a duration
  - Jobs in another View
  - User permissions for Jobs
- Upstream/Downstream jobs
- Filter out all but the most recent jobs
- Use the Build Filter (Wrapper) Column to render your favorite columns with the relevant builds.

Also, see this Cloud Bees write-up of the View Job Filters plugin.

How do I get started?

- Install the plugin
- If needed, create a new view (besides the All view) by clicking the "+" tab
  - You might optionally want to see Editing or Replacing the All View - the default "All" view is not editable
- If editing an existing view, click the "Edit View" link (won't be available for the "All" view)
- You will see the following button in the "Job Filters" section. Click it to select and add the filter type(s) you want.

Regular Expression Job Filter

With a large organization and hundreds of jobs, it will become very annoying and time-consuming to try to keep your views organized. The regular expression job filter can help, and there are multiple options to choose from to make it easier.

- Include/Exclude options - ability to either add jobs or filter out jobs based on the expression, or the negation of the expression
- Job name - allows you to filter out jobs when you have naming conventions. Also allows you to "narrow down" other filters, or to match the negation of an expression
- Job description - if you use descriptions, this may help you get what you want
- SCM Configuration - this one is perhaps the best bang for the buck - put in something like "./my-office-name/" to automatically include all jobs that are organized under source control already by office.
- Maven Configuration - looks at all your Maven goals, including freestyle projects, matrix (multi-configuration) projects, Maven projects, and Maven extra steps.
- Email Recipients - a great way to organize views by "who cares about this job". Will look in either the standard email publisher or the extended email publisher.
- Job Schedule - searches the chron spec and description to group jobs by when they run - for example "weekend jobs"
- Node/Slave Label - matches against the Label Expression under the "Restrict where this project can be run" option
Filter by Relevance to Logged-in User

Create views that are most relevant to the logged-in user.

The "Name Matching" checkbox items are to allow you to get the name matching just right. The problem is that organizations often have different naming conventions that may not be consistent across version control, network logins, and email addresses. All of the options are checked by default so that this filter can make a thorough effort to find matching users.

The "Relevance Matching" options should be self explanatory. The point is to try and find all jobs that the logged in user cares about, based on their activity.

For the "How far back to check" value, use either "0" or blank to indicate you want to check all builds.

Note that not all combinations of criteria will make sense. Also take a look at the User permissions for Jobs filter.

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**Regular Expression Job Filter**

You can use as many Regular Expression Filters as you like - they will each apply in the order you put them in.

**Match Value**: You can choose to match on the Name, Description, Email Recipients, Maven configuration, or SCM configuration of the job. Matching by SCM is extremely useful if you have hundreds of jobs that need to be "auto organized", and are already organized under source control. Matching by Email is useful for organizing by "who cares about this job."

**Match Type**: Choose whether this filter will add additional jobs, or remove jobs.

For example, combine two Regular Expression Filters in this way:
One with a Regular Expression of ".*_Nightly" for a Match Value of "Job name", and a Match Type of "Include Matched",
And another with a Regular Expression of ".*site:deploy.*" for a Match Value of "Maven configuration", and a Match Type of "Exclude Unmatched".
This combination creates a view that shows all nightly jobs that also deploy a Maven site.

<table>
<thead>
<tr>
<th>Regular Expression</th>
<th>.*_Nightly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match Value</td>
<td>Job name</td>
</tr>
<tr>
<td>Match Type</td>
<td>Include Matched - Add jobs that match this filter</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regular Expression</th>
<th>.<em>[Uu]hl.</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Match Value</td>
<td>Job name</td>
</tr>
<tr>
<td>Match Type</td>
<td>Exclude Matched - Filter out jobs that match this filter</td>
</tr>
</tbody>
</table>
Filter by Job Statuses

This filter provides a number of options, and you can also add multiple of these filters, and choose different Match Types to include/exclude exactly the jobs you want. For example, you could create “Failed Jobs Only” and “Unstable Jobs Only” views, or make a more complicated view like the following example combination.

Filter by Build Statuses

This filter gets a little more specific, and provides options to filter by the status of the job’s builds. This example filters out (excludes) all jobs that have never built.

Filter by Build Trend

This filter is similar to the build status filter, but it takes into account the time in which the status changed.
The different Build trend types are

- The latest build was
- At least one build was
- All builds were
  - Completed, Started, Stable, Unstable, Failed, Not Stable
  - Triggered by Timer, SCM, User, Remote, Upstream Job, CLI

The different "how far back to check" types include, "Days", "Hours" and "Builds".

Filter by SCM Type

SCM Type Filter

Organize views by SCM type.

Especially useful in a large organization with hundreds of jobs, or when you are migrating jobs to use a new scm.

If your SCM type is not showing up in the list, it means that plugin is not installed yet.

SCM Type: Subversion
Match Type: Include Matched - Add jobs that match this filter

Filter by the Jobs in Other Views
Filter by Job Parameterization

Use Regular Expressions to include or exclude parameterized jobs based on their build parameters. Match the parameter name, build value, or description. Alternately, you may opt to depend on the default configured value.

For the name, value, and description - a blank indicates you do not care about that field - it behaves as if you had assigned it the regular expression ".*".

This filter works with String, Boolean, File, Choice, and Validating String parameter types.

User Permissions for Jobs

Use this feature in tandem with security features such as the Standard matrix based security to create views that show different jobs depending on who is logged in.
Filter jobs that have enabled project-based security

This filters on whether a job is secured through the "Project-based Matrix Authorization Strategy".

Upstream/Downstream Jobs Filter

This filter allows you to create a view consisting of jobs that are related through the concept of Upstream/Downstream (also called "Build after other projects are built" and "Build other projects"). The options provided allow you to choose exactly which types of related jobs to show.

Note that filters are chained together, so using this filter builds off of the jobs included by previous filters. Remember that

- This filter will not include any jobs if there are no jobs already selected
- This filter (like most other filters) is capable of removing jobs that were already selected

Filter to Most Recent Jobs

Combine this filter with other filters to choose not only the exact types of jobs to show, but how many of them to show.
Showing All Jobs with the "All Jobs" Filter

The All Jobs view by default shows all jobs, but all other views require you to either select the jobs you want to include, or add a regex of ".*" to select all jobs always. This filter does this for you. This mostly useful if you're creating multiple "All Jobs" views, or replacing the default view, and would like to customize the columns, and would simply like to have each of those views show all jobs.

The Build Filter (Wrapper) Column.

This column is an integral part of creating a smart view that shows just the jobs you want, and just the builds for those jobs that you want. Full documentation is found on the Build Filter (Wrapper) Column page.

Roadmap

Version 1.x (Ideas)

These features are not entered as JIRA tickets because technically no one is requesting them. If you want one of these features, please Enter a JIRA Ticket and the feature will probably be added within a week.

- Retrofit existing filters to be default extensions (like the way columns work). Justifications are
  - Allow for other views besides list view to more easily make use of them (for example, the status filter wasn't picked up by other views)
  - Minor benefit is that if you have hundreds of jobs, your view edit screen is cluttered by the list of jobs when all you wanted was a regex or a status. So, you could delete any filters you don't want to see and they won't show up again. Another strategy to handle this might simply be a checkbox titled "hide view list". However, this would obscure the fact that often a job is added to a view accidentally by clicking the "new job" link while on that view.
  - Update other views to use the extension. Currently only used by ListView. Some views extend ListView (and do an include with jelly), so they can't be updated unless they update to newer ListView. Not sure about other views - will need to take time and look at each.
  - Filter on other "descriptive" things besides job name. Large organizations will have other things that distinguish jobs automatically, but Job name isn't always one of those things
    - Maven group id (not sure how practical this is)
    - SCM - add more scms besides cvs and svn - need to test and determine best way to make those scms "optional".
    - "java package" - could do by looking at file path?
  - More status filter options
    - Last time built - i.e. in the last X days (very useful for managing hundreds of jobs that should run nightly, but sometimes are misconfigured, etc.)
    - Number of days/builds stable
    - Build duration (e.g. for a "long running builds" view)
  - Other views filter improvements/fixes
    - Proper handle of deletes
    - ditto for renames
    - Don't allow a view to recursively include itself (currently doesn't break if you do, but it shouldn't even be an option)
  - Filter by scheduling types
    - Filter by all jobs that have polling and/or forced timed builds setup - e.g. "Manual Jobs" and "Scheduled Jobs"
    - And/or Filter by jobs last built manually/pollled/forced
  - Don't allow a view to recursively include itself (currently doesn't break if you do, but it shouldn't even be an option)

Changelog

Version 2.1.1 (Released November 9, 2018)

- Fix: [JENKINS-43343] Regex filter now works with cron schedule for Pipeline jobs

Version 2.1.0 (Released November 4, 2018)

- Feature: Regex Filter now supports full name, display name and full display name for jobs and folders
- Feature: Introduces internationalization support and adds German as first supported language
- Improvement: In-application help has been largely rewritten
Version 2.0.4 (Released October 19, 2018)

* Fix: [JENKINS-13464][JENKINS-14916][JENKINS-32496] Stack overflow when using OtherViewsFilter or UnclassifiedJobsFilter without View. READ permission

Version 2.0.3 (Released October 16, 2018)

* Fix: prevent stack overflow when circular references in Other Views and Unclassified Views filter are detected
  * Display an error message identifying the circular view definition on the view config page
* Fix: make mailer, matrix-auth and matrix-project dependencies optional

Version 2.0.2 (Released September 18, 2018)

* Fix: prevent StackOverflowException when more than one view uses UnclassifiedJobsFilter
* Fix: validate regex in RegExJobFilter
* Fix: ensure sorting in MostRecentJobsFilter is stable

Version 2.0.1 (Released September 13, 2018)

* Fix: [JENKINS-29991][JENKINS-31710] RegExJobFilter/ScmTypeFilter now work with SCMTriggerItem
* Fix: inconsistency in multi-line regex matching, see commit message for details

Version 2.0.0 (Released September 9, 2018)

New maintainer and first release in three years. This release merely puts the project on a newer foundation and updates some dependencies, but otherwise introduces no new features or bug fixes. Existing filters from pre-2.x versions should continue to work.

* Minimal required Jenkins version increased to 1.625.3
* Switch to Semantic Versioning
* Project is now explicitly under the MIT License

Version 1.27 (Released August 21, 2015)

Switched from Subversion to GitHub so the changelog is tricky to determine.

* JENKINS-20522 Proper use of top-level item visibility filter.
* JENKINS-29747 Fallback filters.
* Handle recurse in view.
* JENKINS-21862 Allow parameter filter to filter particular runs correctly.

Version 1.26 (Released August 14, 2013)

* JENKINS-19191 (don't just consider build-trigger upstream, but all upstreams (including join))
* JENKINS-19125 (Job SCM Configuration filter fails with CVS plugin disabled.)
* JENKINS-18986 (Fencepost error in AbstractBuildTrendFilter.amount)

Version 1.23 (Released June 29, 2013)

* JENKINS-18386 (more flexible job filter by parameter)
* JENKINS-17597 (Poor performance using ParameterFilter)
* JENKINS-17093 (Filter to show N jobs sorted by most recently completed)
* JENKINS-18399 (possibility to filter jobs by "Restrict where this project can be run")

Version 1.22 (Released May 24, 2012)

* Re-Fixed JENKINS-13781 (NPE in UserRelevanceView when no user is logged on)

Version 1.21 (Released May 23, 2012)

* Improved Maven project support by implementing two enhancements
  * JENKINS-13846 (Upstream filter does not show all dependencies)
  * JENKINS-13850 (Unable to match emails for "Regular Expression Job Filter" on Match Value "Email recipients")

Version 1.20 (Released May 16, 2012)

* Fixed JENKINS-13781 (NPE in UserRelevanceView when no user is logged on)
* Improvement - JENKINS-13748 (Support for upstream/downstream jobs)

Version 1.19 (Released March 26, 2012)
• Fixed JENKINS-13223 (Filter jobs that have enabled project-based security)

Version 1.18 (Released September 10, 2011)
• Added the Build Filter (Wrapper) Column

Version 1.17.2 (Released September 8, 2011)
• Fixed JENKINS-10935

Version 1.17.1 (Released September 5, 2011)
• Minor fix for Jenkins 1.427 compatibility issue with the introduction of "UserIdCause" (vs UserCause)

Version 1.17 (Released September 3, 2011)
• Added User Relevance Filter (see documentation on this page)

Version 1.16 (Released August 16, 2011)
• Fixed a bug with the way the regex filter handles multi-line descriptions (and trigger specs) JENKINS-10716

Version 1.15 (Released August 13, 2011)
• added trigger types to the build trend filter. For example, create a view of all jobs that have not been triggered by an SCM change in a month.

Version 1.14 (Released August 10, 2011)
• fixed regression in the regex filter. version 1.13 unintentionally requires git plugin to be installed, or regex on scm will cause an exception that cannot be recovered from through the hudson gui.

Version 1.13 (Released July 23, 2011)
• add git
• add chron to regex filter

Version 1.12
• Added Matrix Job support to Regular Expressions Maven option
• Fixed a bug in Regular Expressions Maven option

Version 1.11
• Improved Parameterized Jobs Filter - see http://issues.jenkins-ci.org/browse/JENKINS-8944

Version 1.9
• Job Type Filter
• Parameter Filter improvement to look at build parameter - see http://issues.jenkins-ci.org/browse/JENKINS-7252
• Security Filter - see http://issues.jenkins-ci.org/browse/JENKINS-8355

Version 1.8
• Did not release properly due to Hudson infrastructure problems - all features scheduled for 1.8 are moved to 1.9

Version 1.7
• Under-the-hoods performance improvements such as JENKINS-7956

Version 1.6
• Add Maven support to regular expression filter
• Fixed bug where filters take jobs out of order. This is not a backwards compatible fix in terms of the way it displays, but fixes an obvious bug where the "Job" column shows it is sorted by name, but in fact the jobs are obviously not sorted by name.

Version 1.5
• Fix JENKINS-7732 - "Job Views - Jobs not listed in other views filter"
Version 1.4

- Fix JENKINS-7479 - "Create View Job Filter that includes/excludes Jobs by their Parameters"
- Fix SCM Type localization bug
- For "Other Views" filter, added handling of ViewGroups for nested views

Version 1.3

- Fixed JENKINS-7432 - "Provide View Job Filter by Email Recipients"
- Make SVN and CVS plugins optional instead of required

Version 1.2

- Fixed JENKINS-7160 - "Provide View Filter for Current Jobs (Jobs build within the last x days)"
- Added Build Trend Filter to provide filtering on what happened to the build in recent history (configurable). See this page for details.

Version 1.1

- Fixed JENKINS-6932 - "Allow to filter by SCM Branch" - applies to CVS only

Version 1.0 (initial release)

- Filter on other "descriptive" things besides job name. Large organizations will have other things that distinguish jobs automatically, but Job name isn't one of those things
  - SCM "URL" (only cvs and svn)
  - Job description field
- More comprehensive status filter - would obsolete some other features/plugins, but this filter should be more useful/useable
  - Stable, Unstable, Failed, Aborted
  - In queue, never built, building
  - Disabled
- Common include/exclude drop-down to make filters more easy to "chain"
- All Jobs
- Filter one view's jobs based on other view's jobs.
  - Exclude - For example, View 1 will want all jobs with a certain regex, except for jobs already shown in View 2. Then if View 2 changes what jobs it shows, View 1 is automatically updated.
  - Include - for a large organization, we might want "composite" views (not nested views) of the hierarchical parts of the organization