DIGITAL TOUCAN

Transform Jira into a

Powerful Search Engine & Accelerate the Way You Work

Using Jira Query Language (JQL) and
Search Extensions

Introduction

> ## "Data professionals are wasting on average, 30% of their time (14 hours per week) because they cannot find, protect or prepare data."

IDC InfoBrief, The State of Data Discovery and Cataloging ([source](#)).

What's ironic about the finding above is that despite the rise in a digitalized way of working (e.g., modern project management tools), information is still not easily searchable. This is probably because having too many digital tools inadvertently causes information deluge, where employees face difficulties finding a vital piece of data. Information can also get stuck behind tools.

And the true cost of wasting time looking for information can be dire to both staff and companies:

Loss of productivity
Spending more time looking for information instead of analyzing it and creating new knowledge is akin to not working on value-added activities. Highly skilled staff may lose motivation (and even [leave their organizations](#) as evidenced by a Nintex report) as they are not fully utilizing their potential.

Accidental data duplication
Duplicating data only contributes to more (irrelevant) data, perpetuating the cycle of wasting time searching for information.
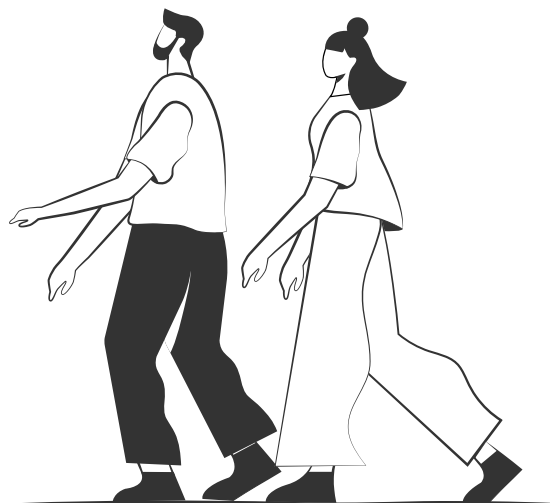
Loss of revenue
In the long run, a lack of right and timely data can lead to wrong decision-making, causing companies to experience a loss of revenue.

A good way to overcome this predicament is by priming your digital tools for accurate and seamless data discovery. If you manage teams and projects in Jira, it all boils down to how efficiently you make use of Jira's native search features.

One such search feature is Jira Query Language (JQL) or Advanced Search. It's one step above the Quick and Basic Searches which can help you to locate the right issues and information almost instantly. If you think that's all, just wait until you learn about search extensions (AKA JQL on steroids).

In this white paper, you'll discover how to transform your Jira into a powerful search engine that can accelerate the way you work using JQL and search extensions, courtesy of a third-party Atlassian app. We'll also show you three powerful JQL search extension use cases that will come in handy when managing teams and projects in Jira.
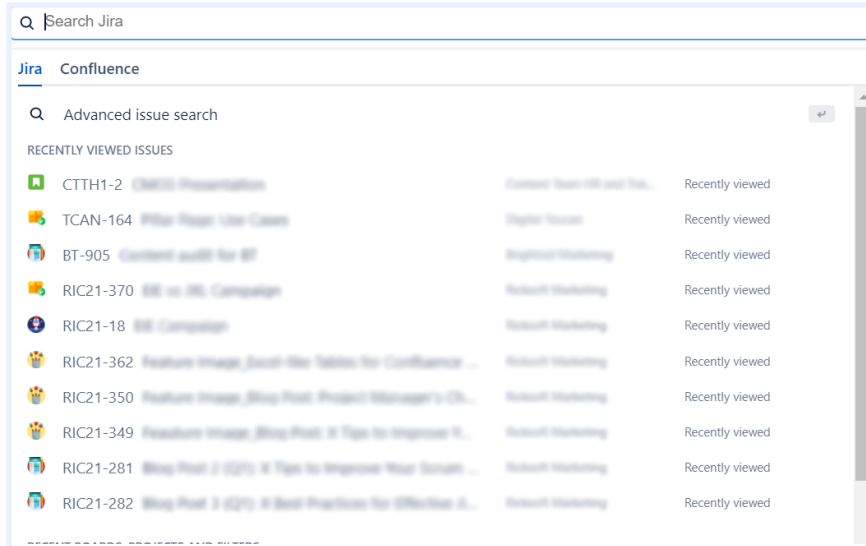
The Lowdown on

Jira Search Features

First, let's have a quick recap of the different types of Jira search features available.
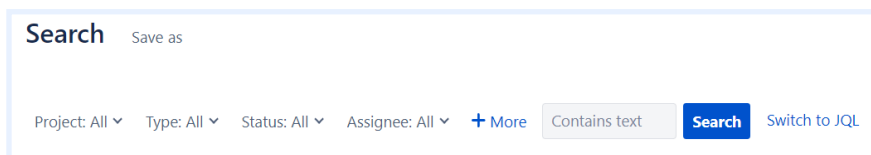
Quick Search

Probably the quickest way to find simple yet critical information in Jira with ease, whether it's displaying recent work, or relevant issues based on the search terms used. This feature is also equipped with smart querying that enables you to perform 'smart' searches with minimal typing.

Jira Quick Search allows you to find simple information instantly.
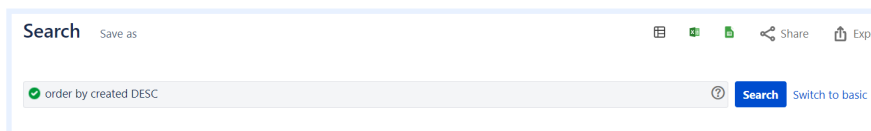
Basic Search

This type of Jira search feature is perfect for complex queries minus the use of Advanced Search or JQL. You can search against specific Jira fields and/or search for specific text/keywords. Search results can also be saved as filters for easy accessibility the next time you're searching for Jira information or issues.

Jira Basic Search allows you to find information based on various Jira fields.

Advanced Search or JQL

This powerful Jira search feature allows you to build structured and complex queries using JQL to accurately retrieve specific Jira issues or information. Since the syntax is highly flexible, you can specify criteria that cannot be defined in the Quick and Basic Searches and get the right data at your fingertips. Once again, query results can be saved as filters for quicker data retrieval.
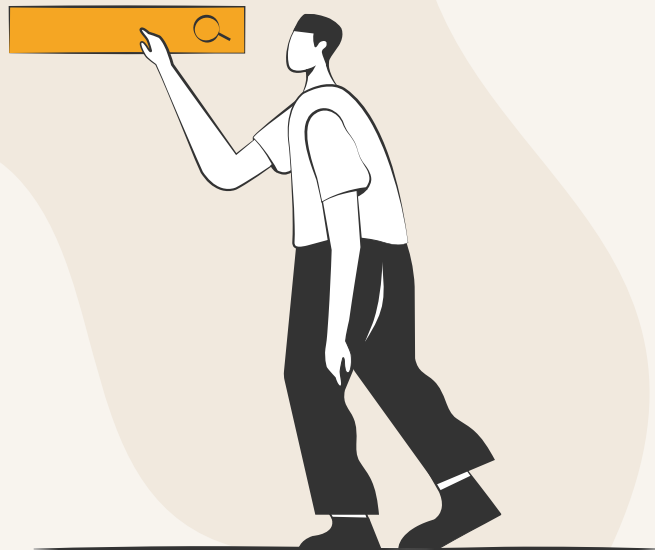

Jira Advanced Search is one of the most powerful and flexible search features.

How JQL & Search Extensions

Make Jira into a Powerful Search Engine

Now, let's dive deeper into the world of JQL and search extensions, as well as how they can transform Jira into a powerful search engine.

JQL Syntax Structure

The JQL syntax structure can be broken down into five basic elements.

Fields
Fields are different types of information related to an issue in the system. Some examples of Jira fields include assignee, priority, issue type, etc. A Jira admin can also create custom fields that can help you locate specific Jira issues even quicker.

Values
Values are the actual, user-defined data in the JQL query; they are usually the information that you're looking for. For example, "subtask" might be one of the values for "issue type."

Functions
Functions appear as words followed by parentheses, which may contain one or more explicit values or Jira fields like status and dates. Functions perform calculations so that you only get specific results based on the values in the parentheses.

Operators
Operators are symbols or words like equals (=) and not equals (!=) which compare the value of a field on its left with one or more values (or functions) on its right. Only true results from these logical comparisons will be shown in the search results.

Keywords
Keywords are specific words like AND, OR, NOT that work similarly to operators in that they show how search terms are related. When used to combine multiple clauses together, you get to refine your Jira search results.

By putting these elements together, you can create logical clauses to accurately find specific Jira data. Here's an example of a JQL query that has all the five elements above:

Atlassian's JQL Cheat Sheet (source).
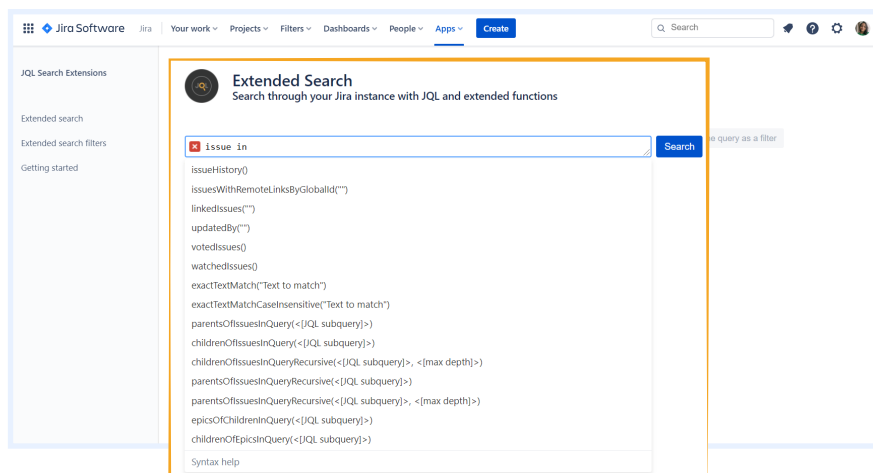
Search Extensions

However, busy project managers like you may not have the time to craft multiple complex JQL queries. Or you could be dealing with a huge Jira database where the standard JQL syntax is too limiting.

This is when search extensions come in handy. They're additional JQL functions and keywords not available in native Jira that can take your search relevance to the next level. You can define more precise search queries, broaden search scope, and find what you need faster.

Fortunately, accessing them is as easy as installing a JQL add-on like JQL Search Extensions for Jira. The app offers a rich search experience thanks to the following powerful features:

Additional Functions and Aliases

Additional search functions are invoked just like the standard JQL functions. They are autocompleted after you start typing *issue in…* for a more efficient search process. On the other hand, additional JQL aliases are similar to the standard JQL fields that provide you an intuitive way to look for data like attachments, comments, links, and so on. Additional aliases are also integrated into Jira advanced search which means that you don't have to open the app just to use the features.

With 50+ new JQL keywords, it's easy to search for what you're looking for.

Wildcard Matches

This feature matches issues with a field containing a specified, case-sensitive text. You can use the asterisk symbol (*) to match any text. You can even put more than one * in a query to nail down specific Jira data.

Find specific Jira data using the wildcard matches feature.

Regular Expressions

To perform very sophisticated text searches, use regular expressions. This feature matches the value of a field with a search pattern, such as finding all versions ending with a number. Regular expressions are case sensitive too.

Regular expressions feature is way more advanced than wildcard matches.

Saving Queries as Filters

If a particular query is something that you check often, you can save it as a search filter so that you can execute it quickly without typing it from scratch. Saving the query as a filter also allows you to leverage it in other parts of Jira such as for instant reporting, automation, and even with other Jira apps. You can then spend more time on other high-value tasks.

Once you have the relevant JQL Search Extension app query, save it as a filter to speed up the way you work.

Three Ways JQL & Search Extensions

Accelerate Your Work

Not only can JQL and search extensions transform Jira into a powerful search engine, but they can also accelerate the way you work. Check out the three ways you can use them to supercharge the way you manage projects and team members.

Searching for Issues

It's good to keep an eye on blocked issues to ensure smooth project progress. For example, to find highest priority issues which are blocked by other issues from project ABC, use this JQL Search Extension app function:

> **linkedBy("is blocked by", "is related to", "project = ABC AND priority = Highest")**

Sometimes, you'd want to find external dependencies—issues from external projects that are linked to your team's project. External dependencies can block or rely on issues in the current project.
To find external issues, use this JQL Search Extension app function:

> **linksIssueProject= JQL**

When there are a lot of issues to work on and manage, it's pretty normal to make mistakes. For example, your team member may have accidentally marked an epic as done even though some of the stories in it are still in progress. To find such an epic, use this JQL Search Extension app function:

> **issue in childrenOfEpicsInQuery("status='Done'") and status='To Do'**

Creating Reports

Besides monitoring issues, you'd also be reporting on their status. Using the JQL Search Extension app, you can save the app query into a filter and then plug it into a Jira dashboard to generate charts and reports.

Filters with new JQL keywords can be used in all gadgets on the Jira dashboard.

Automating Processes

Jira is powered with automation that can help you focus on work that truly matters. You can apply the JQL Search Extension app query into an automation rule and remove the need to perform manual, repetitive tasks. One such example is automatically notifying team members that an SLA is about to be breached.

Automating business processes is as simple as including the relevant JQL Search Extension app query into an automation rule.

Work Smarter Using
JQL Search Extensions

Jira is an amazing project management tool with powerful native search features that can be primed further to accelerate the data discovery process. With the right JQL search extensions, you can locate and dive deep into data, and use it to supercharge the way you work almost instantly.

One of our flagship apps, **JQL Search Extensions for Jira** is a product trusted by over 1500+ organizations worldwide. With 50+ JQL search extensions, our professional indexing service gives you the power to instantly search and filter issues, generate reports and dashboards, and create new automations. Our app is also supported in Jira Service Management since the software also uses JQL for data retrieval.

All the things you need to accelerate the way you work.

Get our 30-day free app trial and see for yourself.

Check our Atlassian Marketplace listing for other powerful Jira apps.

Or contact us if you have further enquiries.

Try App for Free

Check Listing

Contact Us

DIGITAL TOUCAN

About Digital Toucan
Founded in early 2016, the key members of the
Digital Toucan team were part of Atlassian's Jira development arm
for over 8 years where they built some of the core features of the
product. Now, Digital Toucan is one of the leading Atlassian app
vendors with a portfolio of powerful Jira apps like OKR for Jira and
Panaroma for Jira. Being a Gold Partner, Digital Toucan is
committed to creating great apps and providing exceptional
support to help customers achieve their goals in Jira.