3. Knowledge Management

#D365_CS #D365

Create knowledge management solutions

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Overview

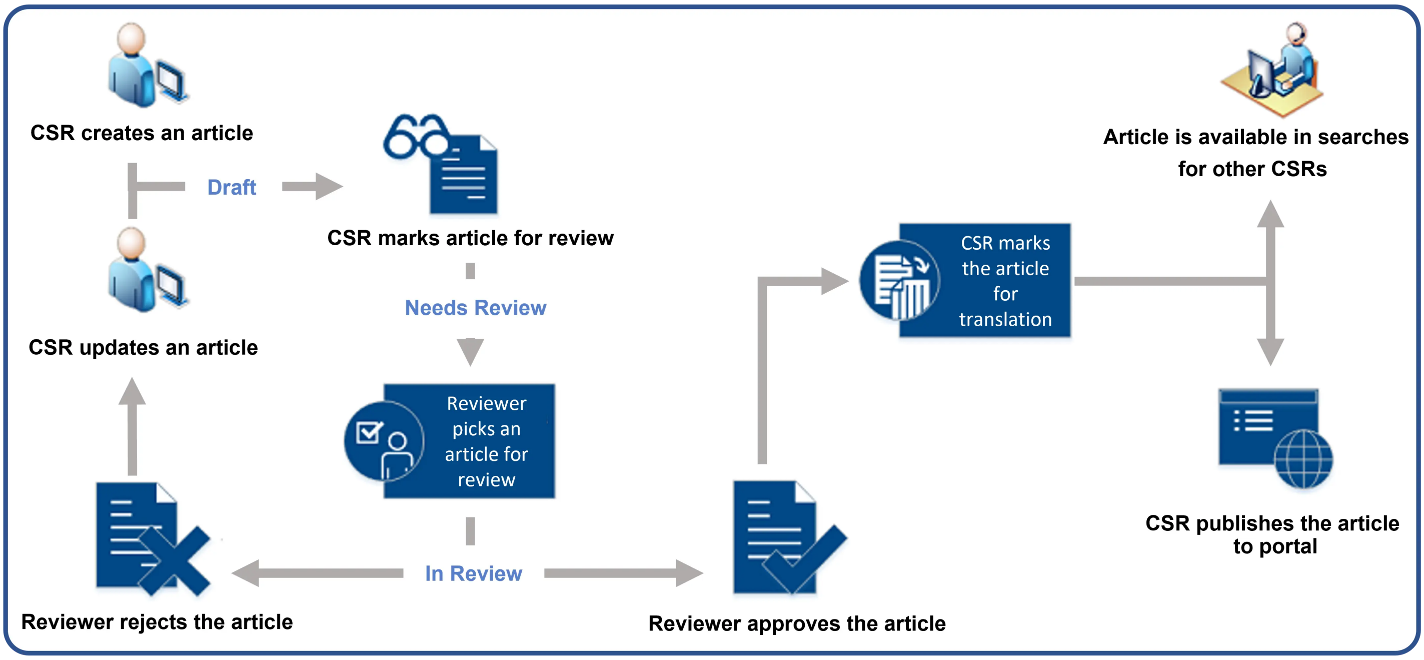
The **Knowledge Manager** module in Microsoft Dynamics 365 lets organizations provide information to both their employees and customers by creating and managing knowledge articles that people might be looking for.

The knowledge management solution lets you:

- **Create and design knowledge articles:** Create rich and well-formatted content for emails and knowledge articles by using rich text editor.
- **Manage the article lifecycle:** Use out-of-box business process flows to manage article lifecycles, or create new processes.
- **Manage the article version history:** Manage updates to articles without disrupting the live or published articles.

- **Translate articles:** Provide translations of an article in multiple languages.
- **Publish articles:** Publish articles as soon as they're approved, or schedule them for later publication. You can also set expiration dates on articles.
- **Track and analyze article statics:** Track how many time an article is used, viewed, and sent to customers.

The following image shows an example of the default process for creating and using knowledge articles in the Customer Service Hub.



Create and define knowledge articles

> Knowledge Articles are created from within the Customer Service Hub or within the Customer Service workspace. They can be created by anyone with the specific permission to do so. In addition to being able to specify who can create articles, people in an organization can also be designated as article approvers.

When an article is first created, you should enter the following information in the **Article content** section on the **Content** tab:

- **Title:** The title communicates the subject and purpose of the article in a concise manner.
- **Keywords:** Keywords are used to search the knowledge base for articles. Separate the different keywords with commas.
- **Description:** The description provides a short overview of the article. This text appears in the search results and is used for search engine optimization.

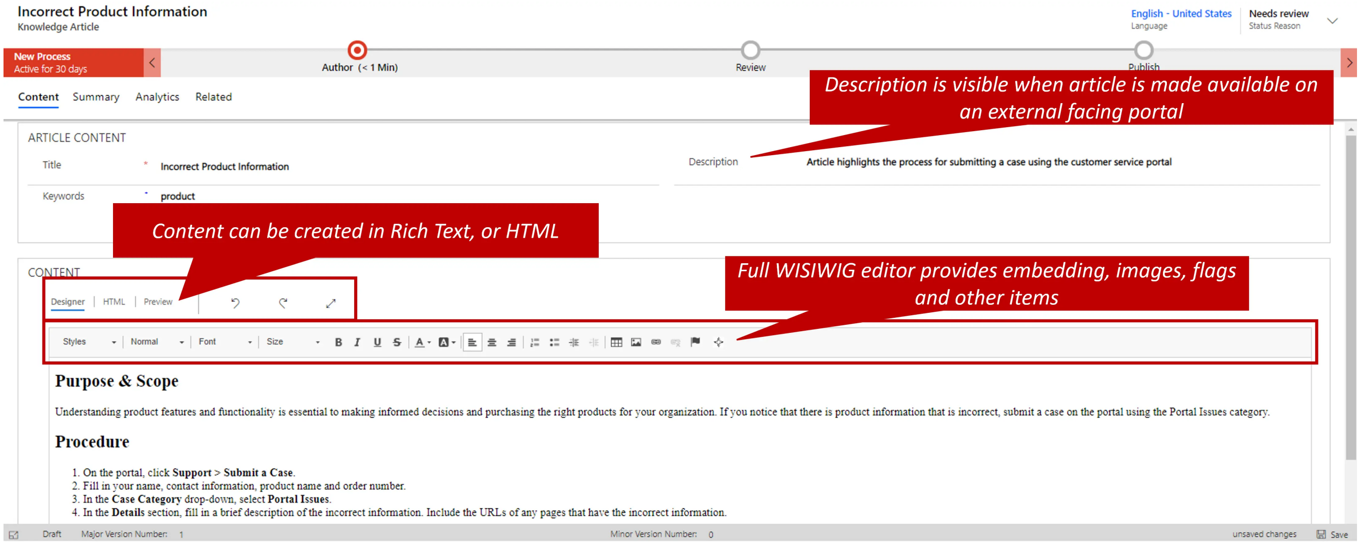
> **Tip**
>
> Once you save the knowledge article, the **View suggested keywords and description** link is displayed. When you click this link, you'll be presented with a dialog that includes suggested keywords and a description.

Info

Keywords are limited to **4000** characters total.
Descriptions are limited to **155** characters total.
The model takes the first **2,200 characters** to **generate suggestions**.

The content editor is in the **Content** section. It consists of three tabs:

- **Designer:** Write and edit the article content. This tab includes enhanced and rich text editing capabilities.
- **HTML:** View an HTML preview of the article content. You can also write and edit the article on this tab.
- **Preview:** See how your content will look like on devices like desktop computers, tablets, or mobile devices.



You can add attachments from the **Content** tab using the **Attach files from** option.
You can select **Files** from the following locations:

- **My Device**: Allows you to select files that are stored on your local device.
- **Previous Uploads**: Opens a search pane where you can search and select from files that were previously uploaded.

The **Summary** tab has lots of other information that's relevant to the knowledge article. Much of this information is updated by the system as changes are made to the article. But you can edit some of it. Here are the two main fields that you might need to update:

- **Internal:** You can mark the article for internal use only. In this case, people from outside your organization won't be able access the article (for example, from a portal). This setting can be useful for articles that focus more on internal processes that aren't relevant to external users.
- **Status Reason:** You can specify the status of the article to indicate whether it's proposed, in review, or waiting for review.

Some information on the **Summary** tab doesn't appear until the article record is saved for the first time. For example, **Related information** and **Timeline** are two important panes that become available when the record is first saved.

- **Timeline:** This pane shows all the related activities that are associated with the knowledge article. You can also add activities directly to the record.
- **Related information:** This pane provides access to records that are related to or associated with the knowledge article. You can open the following records by using the buttons along the right edge of this pane:
  - **Related Versions:** This record shows a complete version history of the article. You can view the previous versions of the article, and can even revert to a previous version if you have to.
  - **Related Translations:** This record shows a list of the different translations that are available for the article.
  - **Related Categories:** This record shows the categories that the article is associated with. Categories are used for article location and analytics. They help provide better article organization when articles are used in a portal knowledge base.
  - **Related Articles:** This record shows any articles that are similar to the article or that have been related to it.
  - **Related Products:** This record shows the products that the article is associated with.

Knowledge article templates are created in the **Customer Service admin center** app by selecting **Knowledge** in the **Agent Experience** group and going to the **Article Templates** section. When defining an article template, there are three sections you'll need to provide data for:

- **Template Data:**
  - **Name:** Defines the name of the article template.
  - **Owner:** Defines who the owner of the template is.
- **Article Data:** Defines article fields such as Title, Keywords, and Subject that are used in any knowledge article that's created based on the template.
- **Content:** Define a structure that will be used in any knowledge article that's created based on this template.

Knowledge article lifecycle

After article content is created, it should be reviewed to make sure that it's accurate. Knowledge articles can be reviewed in two ways:

- **Marked for review:** Articles that are marked for review start appearing on the **Knowledge Manager** dashboard.
- **Directly assigned:** Articles can be assigned directly to specific people or to a queue.

Knowledge articles should be reviewed for accuracy before they're published or made available to other people. When an article requires review, a reviewer can perform the following actions:

- Select an article that's assigned for review.
- Suggest review feedback.

- Approve the content of the article.

Once the article approver thinks that the article is ready to be published, the approver can approve the article by selecting the **Approve** button on the command bar. The article is ready to be published.

> **Info**
>
> Users who need to approve knowledge articles must have **Approve** permissions for the knowledge article record type. This permission is added by default, to the **Knowledge Manager, Customer Service Manager, Customer Service Representative, or System Administrator** role or equivalent permissions.

Manage knowledge article versions, categories, and translations

Two types of versions can be created for knowledge articles:

- **Major version:** This version type represents a major change in features or functionality.
- **Minor version:** This version type represents a minor change that doesn't necessarily affect functionality.

For example, to create a French version of a knowledge article, select the **Translate from** button on the command bar, and then select **French** in the list of available languages.
When you create a version of an article for a different language, the article isn't actually translated into that language. You must supply the translated and formatted text for the article yourself. Third-party language translators can help, and tools like Power Automate can provide some automation of the process.

To create article categories, go to the **Customer Service admin center application** and then, in the **Knowledge** section, select **Categories**. You can also define category hierarchies, like Hardware > Printers > Drums & Rollers. In this way, you can create an article hierarchy for specific categories. To add a category to an article, select **Associate Category** on the command bar. A single article can be associated with multiple categories.

On the right edge of the **Related information** pane, you'll see several buttons that let you work with related records. The following related records are relevant to versions, translations, and categories:

- **Related Versions:** This record lists all the major and minor versions for the current article. From here, you can:
  - Edit or update a version.
  - Create a new major or minor version.
  - Delete a version.
- **Related Translations**: This record lists all the translations that are available for the current article. From here, you can:
  - Edit or update a translation.
  - Create a new major or minor version of a translation.

- Delete a translation or version of a translation.
- **Related Categories:** This record lists all the categories that are associated with the current article. From here, you can:
  - Add article categories.
  - Edit existing article categories.
  - Remove an article category.

Knowledge article publication

Microsoft Dynamics 365 provides two options for publishing articles:

- **Immediately:** You can publish the article right away. You might use this option if, for example, the article content is related to sign-in issues that multiple customers are reporting right now.
- **Scheduled publish:** You can delay publication until a specific time. You might use this option if, for example, the organization's merchandise return policy will be changing on the first of the month. An article can be written in advance and published when the new procedures are in place.

A knowledge article is published, by selecting the **Publish** button on the command bar. This opens the **Article publish** screen. From here, you can do the following:

- **Define when the article is published:** In the **Publish** field, select whether you want to publish the article right away or in the future.
  - If you select In The Future, select the date and time of publication in the **Publish On** field.
- **Define a status for the published article:** In the **Published Status** field, select the status that the article should be set to after it's published.
  - By default, **Published** is selected.
- **Define whether the article expires:** In the **Expiration Date** field, select the date and time when the published article should expire.
  - Expired articles are no longer available in searches.
  - If you set an article to expire, in the **Expiration Status** field, select the status that the article should be set to after it expires.
- **Define whether the article translations should be published:** To publish all approved article translations together with the article, in the **Publish approved related translations with article** field, select Yes.
  - Each article translation must be approved before it can be published. Article translations that haven't been approved won't be published.

You can add feedback by going to Knowledge Articles in the customer service app. On the article you want to provide feedback for, select **Create Feedback**. When providing feedback, you'll need to provide the following information:

- **Title**: Provide a descriptive title that identifies what feedback is about.
- **Regarding**: Allows you to associate the feedback record with relevant records.

- **Source**: Specifies if the feedback is internal or from a portal. For example, If you received feedback via a phone call, you can select **Internal**.
- **Comments**: Provide any relevant comments related to the feedback.
- **Rating**: Enter a number to specify how useful the related record is. For example, if you're tracking the customer satisfaction for a case and you want to rate it a 2 on a scale of 1-10, type 2.
- **Minimum Rating** and **Maximum Rating**: Specify a minimum and maximum rating to define a rating scale. For example, if you want to give it a rating of 2 on the scale of 1-10, type 1 as the minimum rating and 10 as the maximum.
- **Created by (Contact)**: If the feedback is being created on behalf of a customer contact, identify the contact here.
- **Normalized Rating:** This is calculated automatically using the following formula - ***(Rating - Minimum Rating)/ (Maximum Rating - Minimum Rating)***.

Search and filter knowledge articles

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Introduction

Knowledge management administrators can set up the following components:

- **Search filters** - Provides users with multiple filtering options such as dates and languages to make locating knowledge articles easier. Based on the needs of your organization, you can even enable the ability for agents to personalize the filters they use.
- **Federated knowledge search** - Allows additional sources of knowledge content to be returned to uses when searching for knowledge content. These sources could include Microsoft SharePoint site or a different Dynamics 365 organization. The results are displayed along with the results from your Dynamics 365 organization.
- **AI-suggested keywords** - Uses Artificial Intelligence (AI) to analyze the content in an article being created, and provide the author with suggestions for article keywords and descriptions. This helps authors ensure they are using the right keywords and descriptions in their articles, which will make them easier for users to locate when searching.

Knowledge article search filters

In the Microsoft Dynamics 365 Customer Service admin center, you can enable search filters from the **Filters** page, which you can access by selecting **Knowledge** under **Agent Experiences**. The two options that you can turn on are:

- **Enable search filters** - Turns on the ability to use search filters in the current environment.
- **Allow agent to personalize** - Turns on the ability for agents to personalize filters in the different customer service user interfaces.

Additionally, you can define filters on fields that have the following data types:

- Options set
- Multiselect options set
- Lookup
- Two choices
- Date and time

Depending on which filter control that you've selected, any of the following options might display:

- **Preselects** - Defines which one of the available options for that filter will be selected by default in the agent experience. You can only have one predefined option for control.
- **Visibility** - Defines which of the available filter options will be displayed in the agent experience.
- **Deactivate** - Deactivates the filter in the agent experience.
- **Delete** - Removes the filter from the list of available filters.

To make a field available as a custom search filter, you'll need to add it to the **Quick Find Active Knowledge Articles** view. This view helps make searching for records easier. You can modify a **Quick Find** view from the [Microsoft Power Apps maker portal](). In the Power Apps maker portal, go to **Data** (*might be Dataverse*) > **Tables > Knowledge Article**.
Locate and open the **Quick Find Active Knowledge Articles** view and then add the field that you want to include in the view. The following image shows that a custom field called **Article Type** has been added to the view.
After you've added the custom field to the quick find view, it will become available from the list of filter types when you set up filters.

Search for article content from different data sources

To help you provide agents with access to this content, Dynamics 365 Customer Service includes the ability to add search providers that connect to data in other locations. After the search providers have been set up, results will be displayed alongside the search results that are provided through the traditional knowledge article search.

You can set up the following search providers:

- **Cross-Organizational Search** - Allows you to search knowledge articles from a different Dynamics 365 instance.
- **SharePoint** - Allows you to search content that's stored in a SharePoint site in the same tenant.
- **Microsoft Graph Connector** - For organizations that already use Microsoft Search to index all external data with Microsoft Graph.

> You can set up search providers through the Customer Service admin center. To access these search providers, select **Knowledge** under the **Agent experience** group and then

> select **Manage** in the **Search Providers** section. Select **New** to add a search provider. You'll need to define a **Name** and **Owner** for each search provider.

In the **Details** section, select the type of search provider that you want to use. Based on the provider that you select, you'll need to provide more details.

- **Cross-Organizational Search** - You'll need to select the organization that you want to apply. The list of available organizations for you to choose from will be prepopulated based on the organizations that are available in your tenant.
- **SharePoint** - This option requires you to enter the **SharePoint URL** that you want to connect to. The SharePoint site must be part of the same tenant as the Dynamics 365 organization that you're currently working in.
- **Microsoft Graph Connector** - You only need to specify the unique connection ID that you want to apply when you create the connector.

AI suggestions for article keywords and descriptions

Dynamics 365 Customer Service includes the ability for you to apply AI to provide suggestions for article keywords and descriptions. These suggestions help content authors select the correct keywords and descriptions when writing content, which will help improve their productivity.
The AI suggestion feature helps:

- Assist authors by suggesting keywords and descriptions based on the article content that's stored in the built-in knowledge article entity.
- Enable admins to select the source data (text only) fields that the AI model will use. The default fields are **Title** and **Content**.

Knowledge article analytics

> The knowledge analytics that are available in Dynamics 365 Customer Service help provide important insights about how knowledge articles are being used and searched. Supervisors can use these insights to improve their knowledge management system.

Knowledge analytics includes the following features:

- Article insights - Show the impact that knowledge management makes.
- Search term analytics - Provide insights that are related to how agents find and use knowledge articles.

The **Article insights** dashboard provides the following metrics.

Metrics or chart	Definition
Views	The total number of views on the knowledge articles.
Visitors	The total number of unique visitors who viewed the knowledge articles.

Metrics or chart	Definition
Feedback rating	The average feedback rating that's provided by the consumers of the knowledge articles.
Most viewed articles	The top 20 articles used, along with visitors, average feedback rating, linked cases, and shares metrics.
Linked cases	The total number of cases that were linked to the articles.
Shares	The total number of times that the support representative shared the article.
Owner (Filter)	The owner of the knowledge article.

The **Knowledge search term analytics** dashboard includes the following metrics.

KPIs or chart	Definition
Search count	The total number of searches that are completed within a given period.
Search count over duration	The number of searches that are completed within a certain amount of time.
Avg. search rate trend	The day-by-day trend of the average list position of the link that's selected by a user when presented with search results.
Avg. search rank	The average position of the link that's selected by a user when presented within search results.
Engagement rate	The percentage of events where a user interacted with the search results compared to the search events that are presented with results.
Engagement rate trend	The day-by-day trend of the percentage of events where a user interacted with the search results compared to the search events that are presented with results.
Rate of no-result searches	Percentage of instances where the searched term displayed no results.
Rate of no-result searches trend	The day-by-day trend of the percentage of search instances that displayed no results.
Top 20 search terms	The top 20 terms being searched, showing the number of times searched, the average search rate, and engagement rate.
Top 20 search terms with no results	The top 20 search terms that returned no results when searched.
Top 20 search terms with high avg. search rank	The top 20 search topics by volume with an average click position of greater than five.
Top 20 search terms with low engagement rate	The top 20 search topics by volume with engagement rate of less than 40 percent.
Search volume by application	The percentage of searches across multiple applications.
Search volume by search type	The percentage of searches based on whether they were manual or automatic searches.

You can enable the **Knowledge search analytics** dashboard in the Customer Service admin center. You can access the **Knowledge analytics** page by going to the **Operations** group and selecting **Insights**. After you've turned on the **Enable Knowledge analytics** toggle, you can also select the **Add knowledge search analytics** option.
After you've enabled the knowledge analytics reports, you can access them in the Customer Service Hub and Customer Service workspace user interfaces.

- **Customer Service Hub** - Go to **Service > Insights > Knowledge analytics** page. Search term insights are displayed.
- **Customer Service workspace** - On the **Application** tab, select **Knowledge analytics**.

Use knowledge articles to resolve cases

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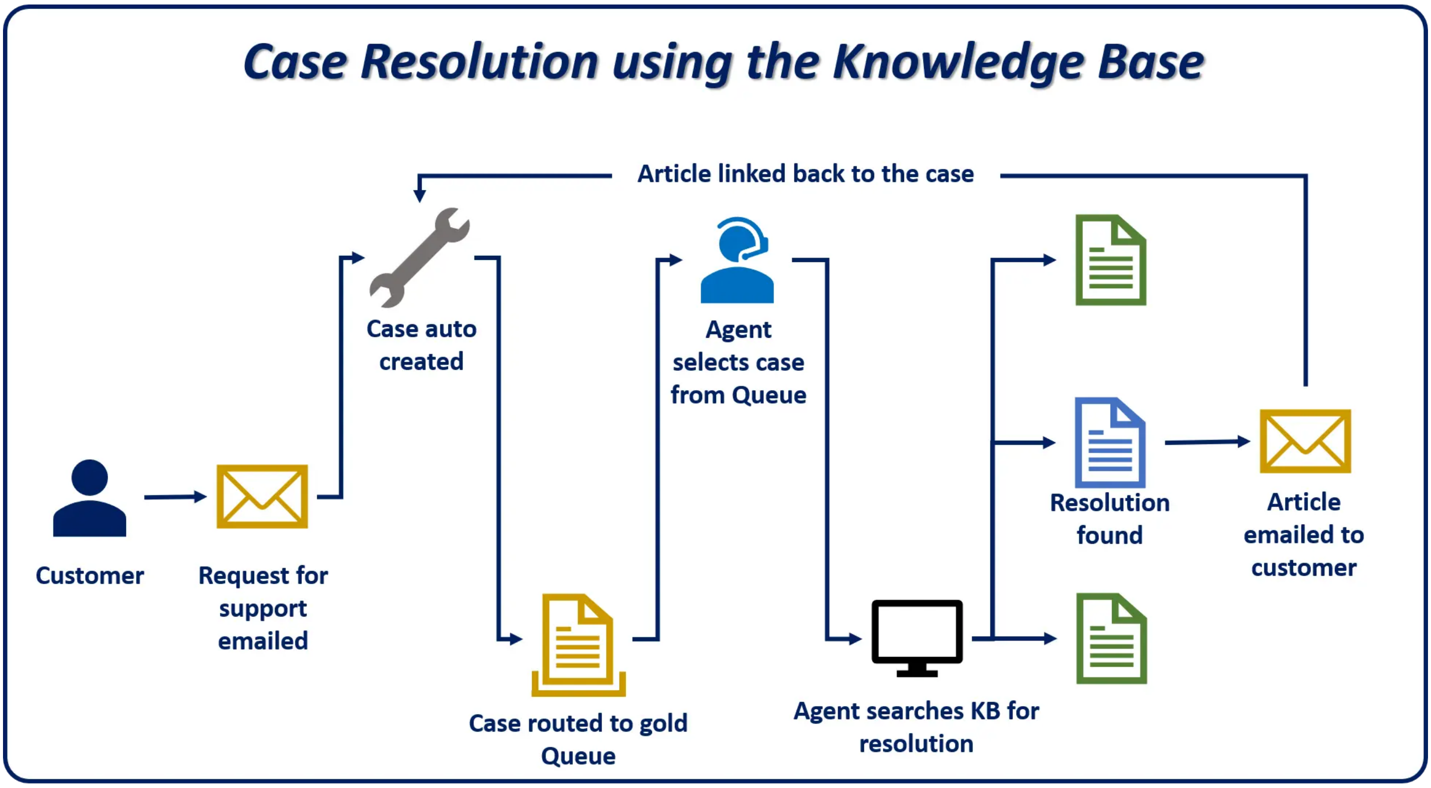
Overview



Enable and configure entities for Knowledge Search

Before the **Knowledge Base Search** control can be used to search for knowledge articles, the knowledge search functionality must be turned on for them. You must also set up the knowledge base functionality for your organization by setting up two items:

- **Embedded Knowledge Search:** Define which entities can use the **Knowledge Base Search** control and which knowledge base is used.
- **Categories:** By defining article categories, you make it easier to find articles during searches

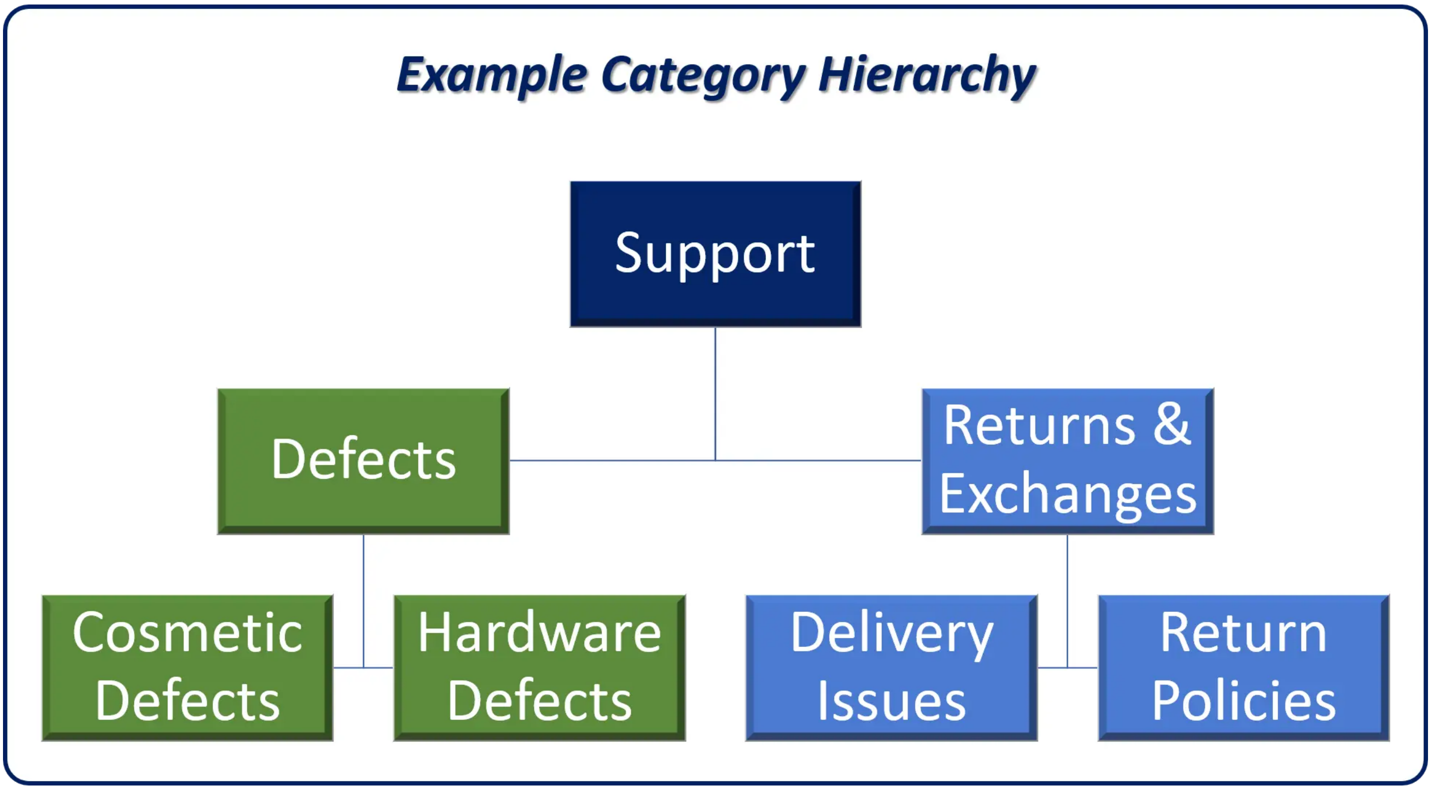
and when the knowledge base is surfaced in a customer service portal.

> To set up the knowledge base functionality, go to **Settings** > **Service**, and then, in the **Knowledge Base Management** section, select **Embedded Knowledge Search** or **Categories**.

The following knowledge base management settings are available for the embedded knowledge search functionality:

- **Record Types:** Select the record types to turn on knowledge base management for. (By default, it's turned on only for case records.)
- **Knowledge Source:** Define the knowledge base to use.
- **Support Portal Connection:** Turn on the knowledge base for external websites.
  - You must define the URL format for articles.
  - You don't have to set this field if you're using Microsoft Power Pages. (The use of Microsoft Power Pages is set up by default.)

Categories can be used to define a hierarchy structure for organizing articles in Dynamics 365. The example in the following image shows one way that categories can be structured.



Configure article search and display options

Customer Service Hub app includes special pages that are called Interactive Experience pages. These pages are used for many of the primary entities that appear in the Customer Service Hub. Make sure that you customize the correct page for the app that will show the information.

The following table shows which page you customize for the three entities that are most often used, depending on the app where they will appear.

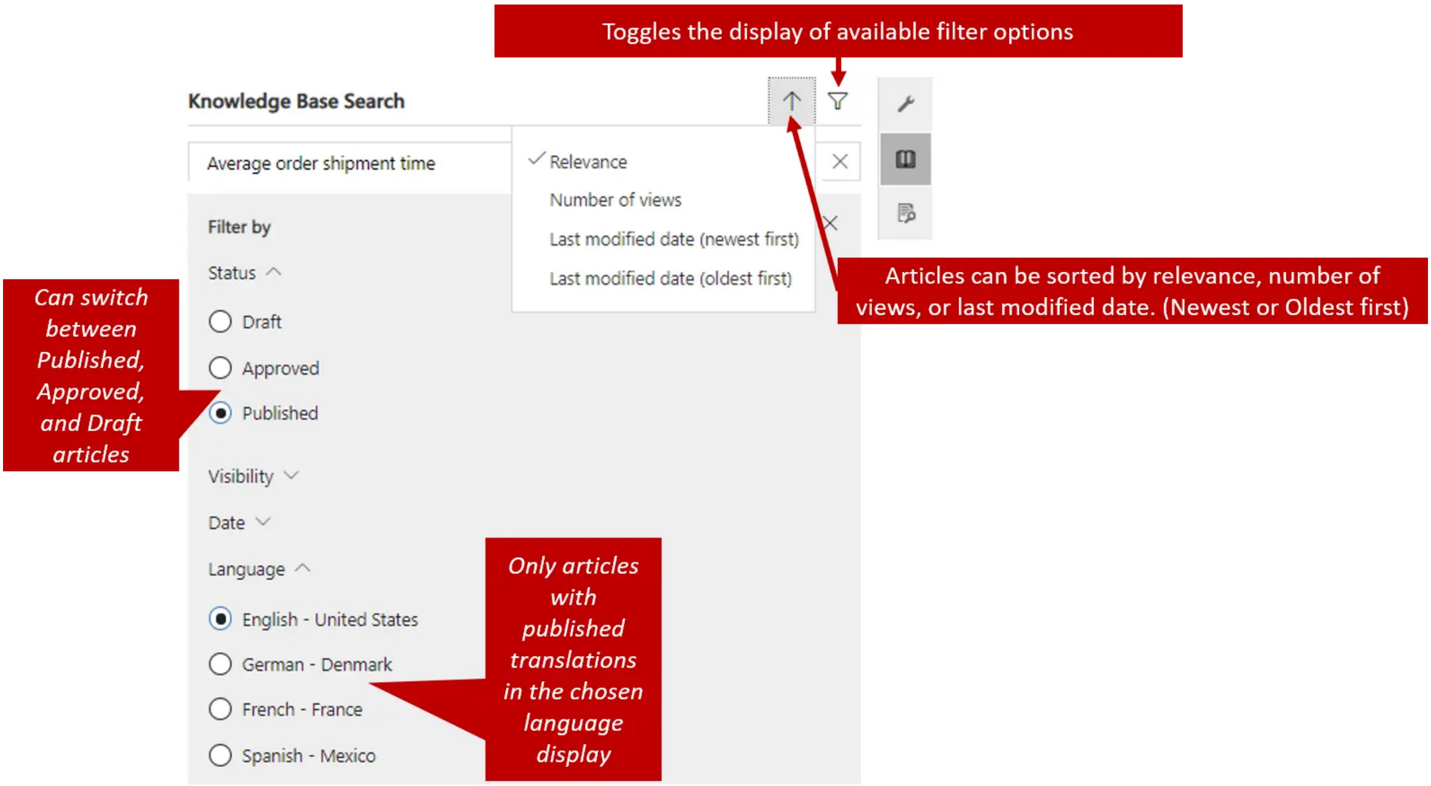
Entity	Customer Service Hub page	Sales Hub page
Account	Account for Interactive Experience	Account
Contact	Contact for Interactive Experience	Contact
Case	Case for Interactive Experience	Case

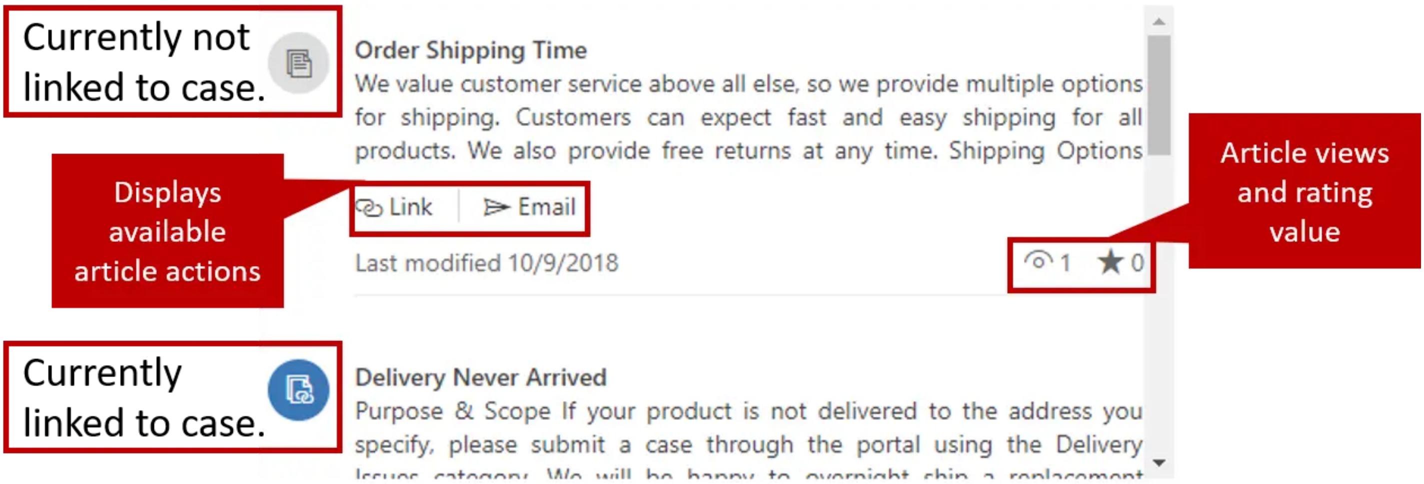
To add the **Knowledge Base Search** control to specific pages, go to **Settings** > **Customizations** > **Customize the System**. From the solution, expand the entity to customize (for example, **Case**), and then select the page to work with.
The **Knowledge Base Search** control is available in the **Related** pane on the **Case** page. By default, the **Related** pane is locked, and you can't edit it. To unlock the **Related** pane, select it, and then select **Change Properties**. Clear the **Lock the section on the Form** check box, and then select **OK**. You can now edit the pane.
If the page that you're working with doesn't have a **Related** pane, you can add it. On the **Insert** tab, select **Section**, and then select the **Reference** pane.

After you've unlocked the **Related** pane, you can set up the **Knowledge Base Search** control by selecting it and then selecting **Change properties**. The control has the following sections:

- **Tab Details:** This section shows the path of the web resource that's being used for the tab icon in the pane. You can change this icon if needed.
- **Name:** This section shows the name of the control and the label that's used for it. You can specify whether the label is shown on the page.
- **Filter Data**: This section determines which knowledge articles are shown in the control by default. You can specify whether users can change the filters that are used.
- **Additional Options:** This section provides additional settings that determine how the control searches for data, how many articles are returned, and which actions are available to users in the control. It includes the following fields:
  - **Turn on automatic suggestions:** Select this check box to turn on automatic article suggestions.
  - **Give knowledge base (KB) suggestions using:** Select the field that should provide the search value that's used to provide automatic article suggestions. (By default, *Case Title* is selected.)
  - **Enable ratings on KB article search results based on specified field:** Select this check box to turn on ratings for articles, based on the specified field. (By default, *Rating* is selected.)
  - **Select primary customer:** Select the field that should be used as the primary customer field for the association. (By default, *Customer* is selected.)
  - **Number of results:** Enter the number of articles that should be returned in search results. (By default, *10* is entered.)
  - **Actions:** Select the article actions that should be available for each record that's returned in the search results. Examples of actions include copying the link, linking the article, and emailing the link. (By default, *Show all* is selected.)

Search for knowledge articles





When an agent chooses to email an article to a customer, Dynamics 365 automatically creates an email that includes the content of the article. The article email window uses the same "what you see is what you get" (WYSIWYG) editor that's used to create articles. The agent can completely edit content of the article in the email before it's sent.

Article analytics

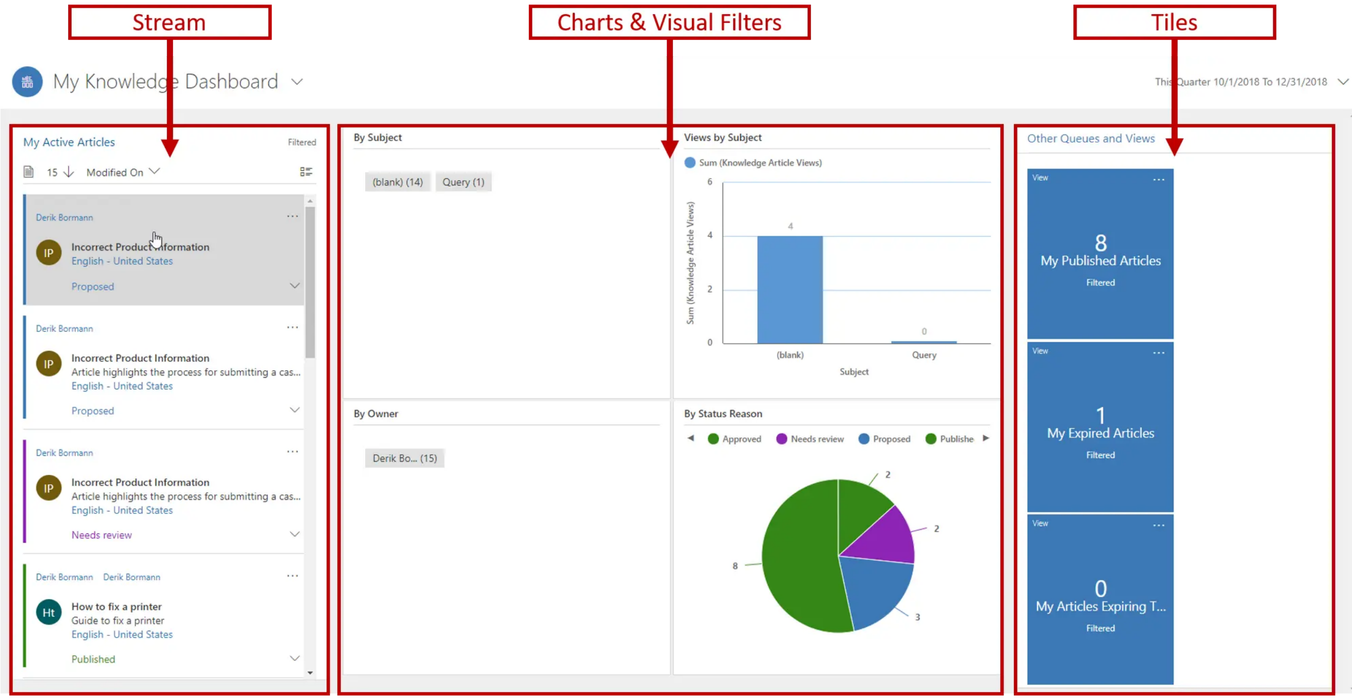
The **My Knowledge Dashboard** page is designed for authors. It gives the author a visual snapshot of the number and status of the articles that they are working on. It helps authors quickly learn which articles are expiring during the month, which articles are in review, and so on.

The **My Knowledge Dashboard** page provides the following data:

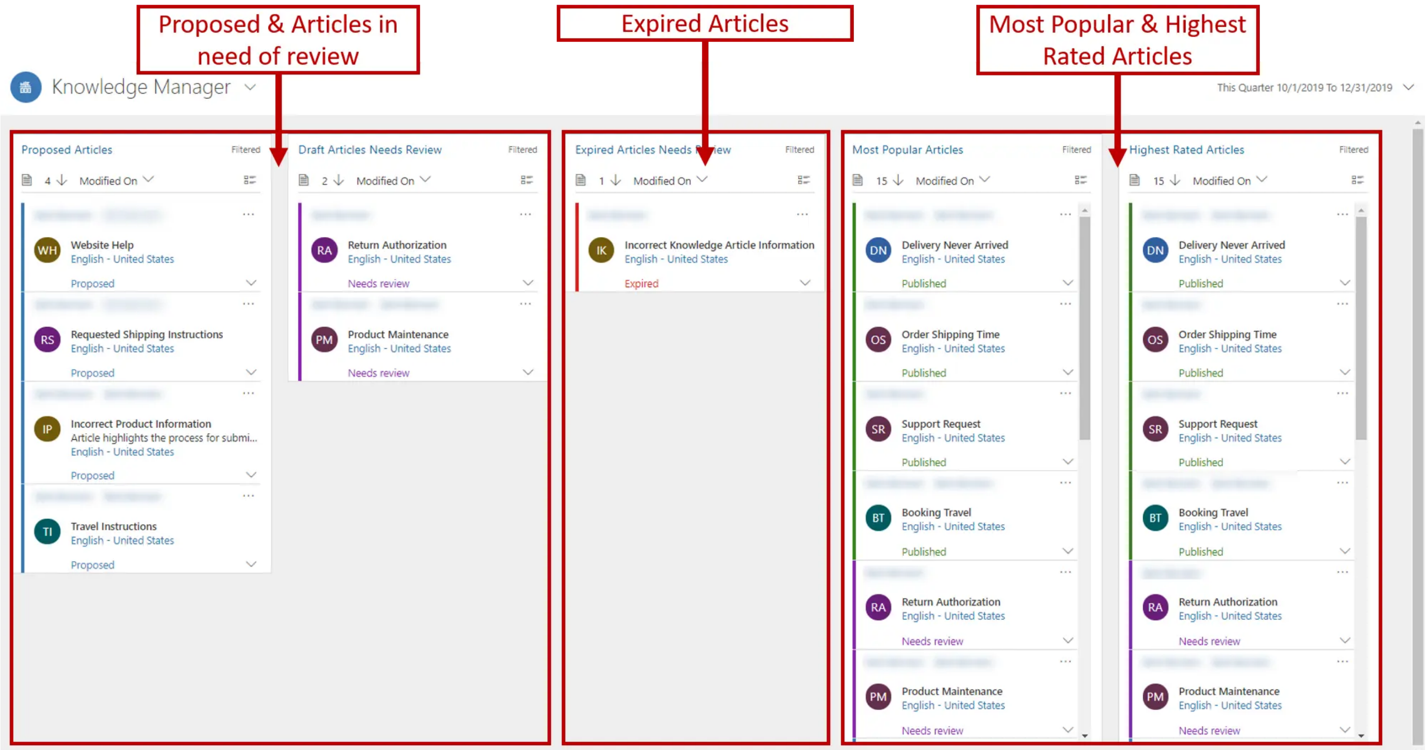
- **My Active Articles stream:** This stream shows the active articles that are assigned to the author.
- **Charts and visual filters:** The charts provide a count of relevant records in the stream. For example, you can see articles by status, owner, or subject. The charts also act as visual filters.

Authors can drill down into a chart to see data that interests them the most.

- **Other Queues and Views section**: The tiles in this section aggregate data in the stream and help monitor the volume of articles. By default, this section includes the following tiles: **My Published Articles**, **My Expired Articles**, and **My Articles Expiring This Month**.



The **Knowledge Manager** dashboard is designed specifically for knowledge managers. It lets them quickly find out the most popular articles, articles that need review, or the highest-rated articles. If the articles require any action, knowledge managers can also take it directly from the dashboard.

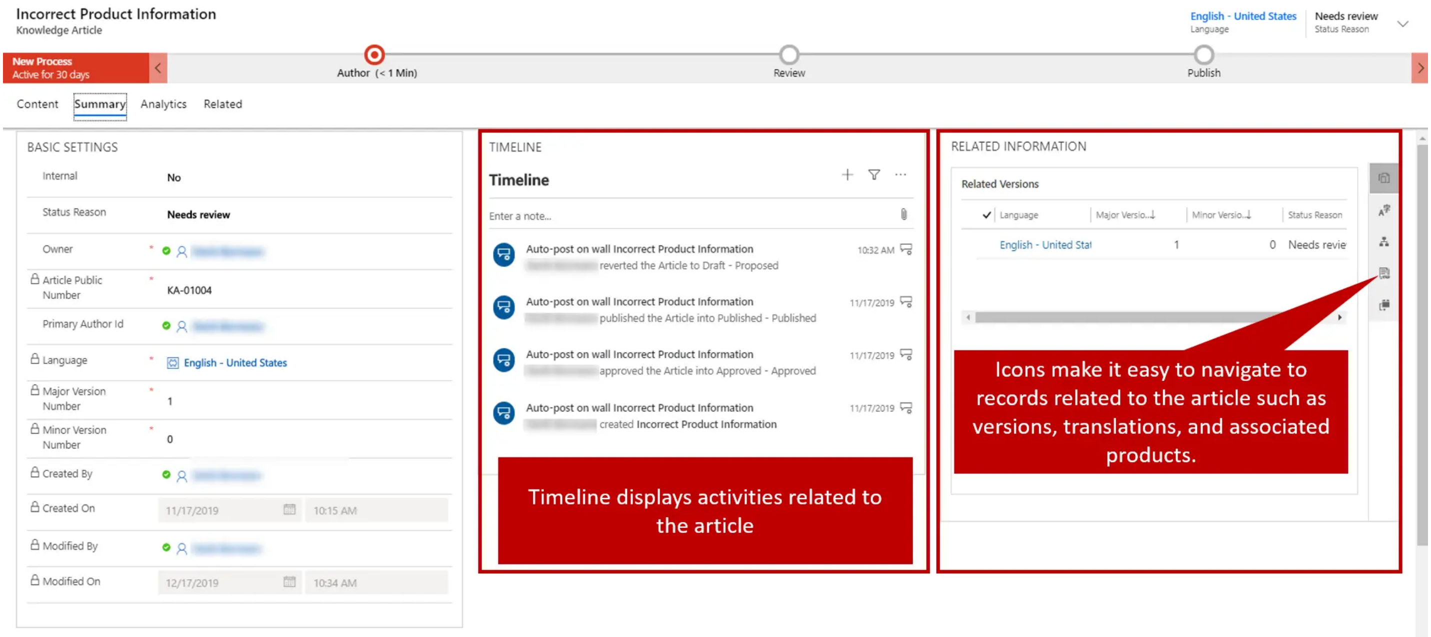


For each article, two tabs let you track basic article information and analytical information:

- Summary
- Analytics

The **Basic settings** pane of the **Summary** tab has lots of information that's relevant to the article. The **Timeline** pane provides timeline information for the article. Finally, the **Related**

information pane provides access to records that are either related to or associated with the article.



By knowing and understanding when, where, and how many times an article is viewed, you can determine how much customers and team members rely on the information in the article. This data is extremely useful when you create future content curation plans. Article view counts and other statistics are available on the **Analytics** tab. This tab includes the following panes: