Syntax guidance for basic Markdown usage

04/26/2021 • 16 minutes to read • 🕡 📋 😡 臭 💿 +12

In this article

Headers

Paragraphs and line breaks

Blockquotes

Horizontal rules

Emphasis (bold, italics, strikethrough)

Code highlighting

Tables

Lists

Links

Images

Checklist or task list

Emoi

Ignore or escape Markdown syntax to enter specific or literal characters

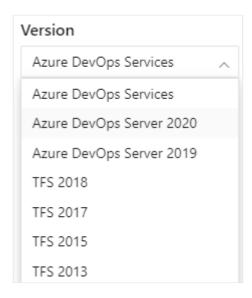
Attachments

Mathematical notation and characters

Related articles

Azure DevOps Services | Azure DevOps Server 2020 | Azure DevOps Server 2019 | TFS 2018 - TFS 2015

(i) Important



To view the content available for your platform, make sure that you select the correct version of this article from the version selector which is located above the table of contents. Feature support differs depending on whether you are working from Azure DevOps Services or an on-premises version of Azure DevOps Server, renamed from Team Foundation Server (TFS).

To learn which on-premises version you are using, see What platform/version am I using?

Here you can find some basic Markdown syntax guidance and specific guidance for using Markdown in Azure DevOps features. You can use both common Markdown conventions and GitHub-flavored extensions.

Having the right guidance at the right time is critical to success. Use Markdown to add rich formatting, tables, and images to your project pages, README files, dashboards, and pull request comments.

For more syntax that's supported for Wiki pages, see Wiki Markdown guidance.

You can provide guidance in the following areas using Markdown:

- Project wiki
- Publish code as wiki
- Markdown widget added to a dashboard
- Project page or Welcome pages
- Repository README files

- Pull request (PR) comments
- Definition of Done (Kanban board)

(i) Important

Not all Markdown syntax is supported across all features. Each section in this article identifies the features the syntax is supported with the **Supported in** line.

Headers

Supported in: Definition of Done | Markdown widget | Pull Requests | README files | Wikis

Structure your comments using headers. Headers segment longer comments, making them easier to read.

Start a line with a hash character # to set a heading. Organize your remarks with subheadings by starting a line with more hash characters, for example ####. Up to six levels of headings are supported.

Example:

```
markdown

# This is a H1 header

## This is a H2 header

### This is a H3 header

#### This is a H4 header

##### This is a H5 header
```

Result:

This is an H1 header

This is an H2 header

This is an H3 header

This is an H4 header

This is an H5 header

Paragraphs and line breaks

Supported in: Definition of Done | Markdown widget | Pull Requests | README files | Wikis

Make your text easier to read by breaking it into paragraphs or with line breaks.

Pull requests

In pull request comments, select **Enter** to insert a line break, and begin text on a new line.

Example - pull request comment:

```
Add lines between your text with the **Enter** key. Your text gets better spaced and makes it easier to read.
```

Result:

Add lines between your text with the Enter key.

Your text gets better spaced and makes it easier to read.

Markdown files or widgets

In a Markdown file or widget, enter two spaces before the line break, and then select **Enter** to begin a new paragraph.

Example - Markdown file or widget:

```
Add two spaces before the end of the line, and then select **Enter**.(space, space, Enter)
A space gets added in between paragraphs.
```

Result:

Add two spaces before the end of the line, and then select Enter.

A space gets added in between paragraphs.

Blockquotes

Supported in: Definition of Done | Markdown widget | Pull Requests | README files | Wikis

Quote previous comments or text to set the context for your comment or text.

Quote single lines of text with > before the text. Use many > characters to nest quoted text. Quote blocks of lines of text by using the same level of > across many lines.

Example:

- > Single line quote
- >> Nested quote
- >> multiple line
- >> quote

Result:

Single line quote

Nested quote multiple line quote

Horizontal rules

Supported in: Definition of Done | Markdown widget | Pull Requests | README files | Wikis

To add a horizontal rule, add a line that's a series of dashes ---. The line above the line containing the --- must be blank.

Example:

above			
below			

Result:

above

below

Emphasis (bold, italics, strikethrough)

Supported in: Definition of Done | Markdown widget | Pull Requests | README files | Wikis

You can emphasize text by applying bold, italics, or strikethrough to characters:

- To apply italics: surround the text with an asterisk * or underscore _
- To apply bold: surround the text with double asterisks **.
- To apply strikethrough: surround the text with double tilde characters ~~.

Combine these elements to apply emphasis to text.

① Note

There is no Markdown syntax that supports underlining text. Within a wiki page, you can use the HTML <u> tag to generate underlined text. For example, <u>underlined text</u> yields underlined text.

Example:

```
Use _emphasis_ in comments to express **strong** opinions and point out ~~corrections~~

**_Bold, italicized text_**

**~~Bold, strike-through text~~**
```

Result:

Use *emphasis* in comments to express **strong** opinions and point out corrections **Bold**, **italicized text** Bold, strike-through text

Code highlighting

Supported in: Pull Requests | README files | Wikis

Highlight suggested code segments using code highlight blocks. To indicate a span of

the block. To indicate code inline, wrap it with one backtick quote (`).

① Note

Code highlighting entered within the Markdown widget renders code as plain preformatted text.

Example:

```
sudo npm install vsoagent-installer -g
```

Result:

```
sudo npm install vsoagent-installer -g
```

Example:

To install the Microsoft Cross Platform Build & Release Agent, run the following: `\$ sudo npm install vsoagent-installer -g`.

Result:

To install the Microsoft Cross Platform Build & Release Agent, run the following command: \$ sudo npm install vsoagent-installer -g.

Within a Markdown file, text with four spaces at the beginning of the line automatically converts to a code block.

Set a language identifier for the code block to enable syntax highlighting for any of the supported languages in highlightjs , version v9.10.0.

```
``` language
code
```

#### More examples:

```
const count = records.length;

JavaScript

Const count = records.length;

const count = records.length;

csharp
Console.WriteLine("Hello, World!");

C#

Console.WriteLine("Hello, World!");
```

## **Tables**

## Supported in: Markdown widget | Pull Requests | README files | Wikis

Organize structured data with tables. Tables are especially useful for describing function parameters, object methods, and other data that have a clear name to description mapping. You can format tables in pull requests, wiki, and Markdown files such as README files and Markdown widgets.

- Place each table row on its own line
- Separate table cells using the pipe character |
- The first two lines of a table set the column headers and the alignment of elements in the table
- Use colons (:) when dividing the header and body of tables to specify column alignment (left, center, right)
- To start a new line, use the HTML break tag (<br/> ) (Works within a Wiki but not

elsewhere)

- Make sure to end each row with a CR or LF.
- A blank space is required before and after work item or pull request (PR) mentions inside a table cell.

#### **Example:**

#### Result:

Heading 3	Heading 2	Heading 1
Cell A3	Cell A2	Cell A1
Cell B3 second line of text	Cell B2	Cell B1

## Lists

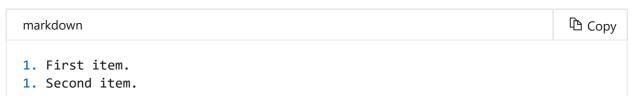
## Supported in: Definition of Done | Markdown widget | Pull Requests | README files | Wikis

Organize related items with lists. You can add ordered lists with numbers, or unordered lists with just bullets.

Ordered lists start with a number followed by a period for each list item. Unordered lists start with a -. Begin each list item on a new line. In a Markdown file or widget, enter two spaces before the line break to begin a new paragraph, or enter two line breaks consecutively to begin a new paragraph.

### Ordered or numbered lists

#### Example:



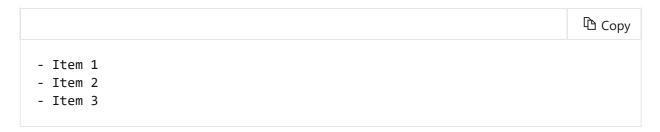
1. Third item.

#### Result:

- 1. First item.
- 2. Second item.
- 3. Third item.

## **Bullet lists**

#### **Example:**

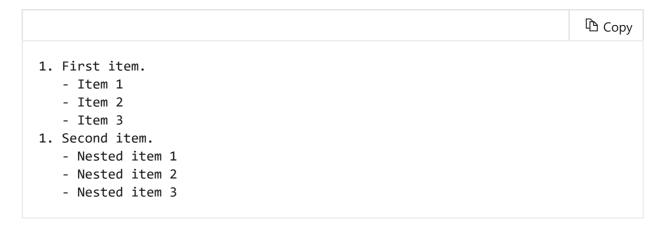


#### Result:

- Item 1
- Item 2
- Item 3

## **Nested lists**

#### Example:



#### Result:

- 1. First item.
  - Item 1
  - Item 2
  - Item 3

#### 2. Second item.

- Nested item 1
- Nested item 2
- Nested item 3

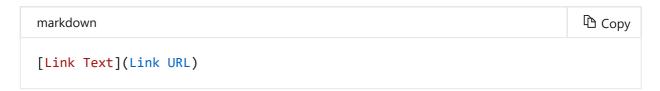
## Links

## Supported in: Definition of Done | Markdown widget | Pull Requests | README files | Wikis

In pull request comments and wikis, HTTP and HTTPS URLs are automatically formatted as links. You can link to work items by entering the # key and a work item ID, and then choosing the work item from the list.

Avoid auto suggestions for work items by prefixing # with a backslash ( $\setminus$ ). This action can be useful if you want to use # for color hex codes.

In Markdown files and widgets, you can set text hyperlinks for your URL using the standard Markdown link syntax:



When linking to another Markdown page in the same Git or TFVC repository, the link target can be a relative path or an absolute path in the repository.

#### Supported links for Welcome pages:

- Relative path: [text to display](target.md)
- Absolute path in Git: [text to display](/folder/target.md)
- Absolute path in TFVC: [text to display](\$/project/folder/target.md)
- URL: [text to display](http://address.com)

#### Supported links for Markdown widget:

• URL: [text to display](http://address.com)

#### Supported links for Wiki:

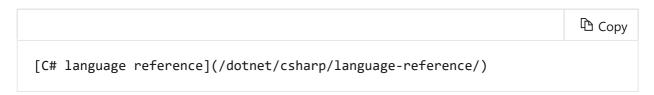
- Absolute path of Wiki pages: [text to display](/parent-page/child-page)
- URL: [text to display](http://address.com)

#### ① Note

Links to documents on file shares using file:// aren't supported on 2017.1 and later versions. This restriction has been implemented for security purposes.

For information on how to specify relative links from a Welcome page or Markdown widget, see **Source control relative links**.

#### Example:



#### Result:

C# language reference

### Source control relative links

Links to source control files are interpreted differently depending on whether you specify them in a Welcome page or a Markdown widget. The system interprets relative links as follows:

- **Welcome page**: relative to the root of the source control repository in which the welcome page exists
- Markdown widget: relative to the team project collection URL base

#### For example:

Welcome page	Markdown widget equivalent
/BuildTemplates/AzureContinuousDeploy.11.xaml	/DefaultCollection/Fabrikam Fiber/_versionControl#path=\$/Tfvc Welcome/BuildTemplates/AzureContinuous
./page-2.md	/DefaultCollection/Fabrikam Fiber/_versionControl#path=\$/Tfvc Welcom
4	

## **Anchor links**

HTML. The ID is the heading text, with the spaces replaced by dashes (-) and all lower case. In general, the following conventions apply:

- Punctuation marks and leading white spaces within a file name are ignored
- Upper case letters are converted to lower
- Spaces between letters are converted to dashes (-).

#### Example:

	🖺 Сору
###Link to a heading in the page	

#### Result:

The syntax for an anchor link to a section...

```
[Link to a heading in the page](#link-to-a-heading-in-the-page)
```

The ID is all lower case, and the link is case-sensitive, so be sure to use lower case, even though the heading itself uses upper case.

You can also reference headings within another Markdown file:

```
[text to display](./target.md#heading-id)
```

In wiki, you can also reference heading in another page:

```
[text to display](/page-name#section-name)
```

## **Images**

## Supported in: Markdown widget | Pull Requests | README files | Wikis

To highlight issues or make things more interesting, you can add images and animated GIFs to the following aspects in your pull requests:

- Comments
- Markdown files

Wiki pages

Use the following syntax to add an image:

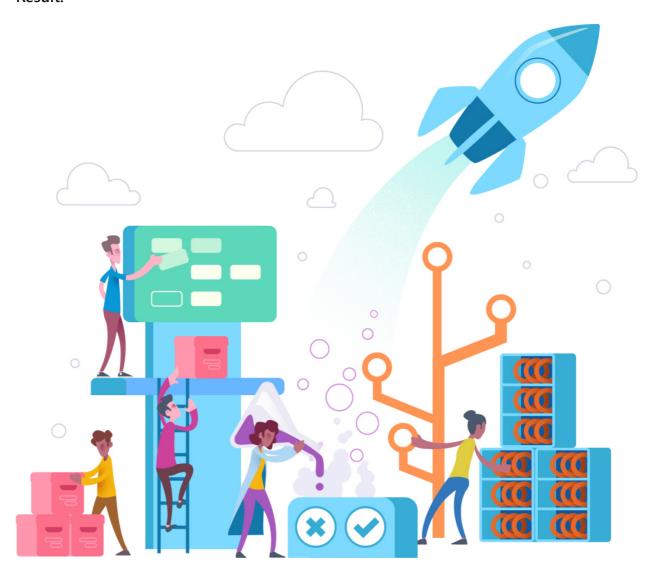
![Text](URL)

The text in the brackets describes the image being linked and the URL points to the image location.

#### **Example:**

![Illustration to use for new users](https://azurecomcdn.azureedge.net/cvt-779fa2985e70b1ef1c34d319b505f7b4417add09948df4c5b81db2a9bad966e5/images/page/services/devops/hero-images/index-hero.jpg)

#### Result:



The path to the image file can be a relative path or the absolute path in Git or TFVC, just

like the path to another Markdown file in a link.

- Relative path: ![Image alt text](./image.png)
- Absolute path in Git: ![Image alt text](/media/markdown-guidance/image.png)
- Absolute path in TFVC: ![Image alt text](\$/project/folder/media/markdown-guidance/image.png)
- Resize image: IMAGE\_URL =WIDTHXHEIGHT

① Note

Be sure to include a space before the equal sign.

- Example: ![Image alt text](\$/project/folder/media/markdown-guidance/image.png =500x250)
- It's also possible to specify only the WIDTH by leaving out the HEIGHT value: IMAGE\_URL =WIDTHx

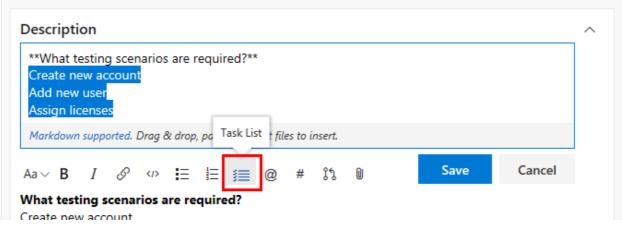
## Checklist or task list

## Supported in: Pull Requests | Wikis

Lightweight task lists are great ways to track progress on your to-dos as a pull request creator or reviewer in the PR description or in a wiki page. Select the Markdown toolbar to get started or apply the format to selected text.

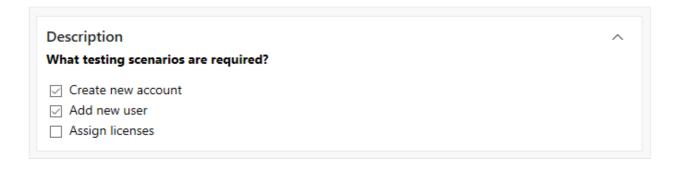
You can Use [ ] or [x] to support checklists. Precede the checklist with either - <space> or 1.<space> (any numeral).

#### Example - Apply the task list Markdown to a highlighted list



Add new user
Assign licenses

After you've added a task list, you can check the boxes to mark items as completed. These actions are expressed and stored within the comment as [] and [x] in Markdown.



#### Example - Format a list as a task list

ГЛА			
- Ι Ι Δ			
- [ ] A			
- [ ] B			
- I I B			
Γ 1 <b>C</b>			
- [ ] C			
L ] -			
- [x] A			
- IXI A			
L 3			
- [x] B			
-   X   D			
F 7 6			
- IVI (			
- [x] C			

#### Result:

□ A		
□В		
□ c		
✓ A		
✓ B		
∠ C		

① Note

A checklist within a table cell isn't supported.

## Emoji

## Supported in: Pull Requests | Wikis

In pull request comments and wiki pages, you can use emojis to add character and

react to comments in the request. Enter what you're feeling surrounded by : characters to get a matching emoji in your text. The full set of emojis are supported.

#### **Example:**

```
:smile:
:angry:
```

#### Result:



To escape emojis, enclose them using the `character.

#### Example:

```
`:smile:` `:)` `:angry:`
```

#### Result:

:smile: :) :angry:

# Ignore or escape Markdown syntax to enter specific or literal characters

## Supported in: Definition of Done | Markdown widget | Pull Requests | README files | Wikis

Syntax		Example/notes
To insert one of the following prefix with a \((\)(backslash).	ng characters,	Some examples on inserting special characters:
,		Enter \\ to get \
backslash		Enter \_ to get _
`, backtick		Enter \# to get #
_, underscore		5
{}, curly braces		Enter \( to get (
		- · · · · · · · · · · · · · · · · · · ·

```
Enter \. to get .

[], square brackets

Enter \! to get !

(), parentheses

Enter * to get *

#, hash mark

+, plus sign

-, minus sign (hyphen)

., period

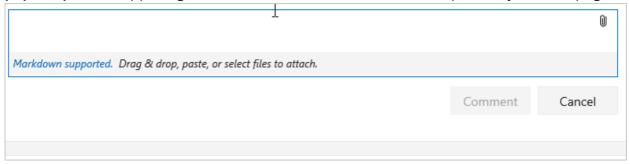
!, exclamation mark

*, asterisk
```

## **Attachments**

## Supported in: Pull Requests | README files | Wikis

In pull request comments and wiki pages, you can attach files to illustrate your point or to give more detailed reasoning behind your suggestions. To attach a file, drag and drop it into the comment field or wiki page edit experience. You can also select the **paperclip** in the upper right of the comment box or the format pane in your wiki page.



If you have an image in your clipboard, you can paste it from the clipboard into the comment box or wiki page and it renders directly into your comment or wiki page.

Attaching non-image files creates a link to the file in your comment. Update the description text between the brackets to change the text displayed in the link. Attached image files render directly into your comment or wiki pages. After you save or update a comment or wiki page with an attachment, you can see the attached image and can select links to download attached files.

Attachments support the following file formats.

Type File	e formats
Code CS	(.cs), Extensible Markup Language (.xml), JavaScript Object Notation

Markdown syntax for files, widgets, and wikis - Azure DevOps | Microsoft Docs (.json), Hypertext Markup Language(.html, .htm), Layer (.lyr), Windows PowerShell script (.ps1), Roshal Archive (.rar), Remote Desktop Connection (.rdp), Structured Query Language (.sql) - Note: Code attachments aren't permitted in PR comments

Туре	File formats
Compressed files	ZIP (.zip) and GZIP (.gz)
Documents	Markdown (.md), Microsoft Office Message (.msg), Microsoft Project (.mpp), Word (.doc and .docx), Excel (.xls, .xlsx and .csv), and Powerpoint (.ppt and .pptx), text files (.txt), and PDFs (.pdf)
Images	PNG (.png), GIF (.gif), JPEG (both .jpeg and .jpg), Icons (.ico)
Visio	VSD (.vsd and .vsdx)
Video	MOV (.mov), MP4 (.mp4)

#### ① Note

Not all file formats are supported within pull requests, such as Microsoft Office Message (.msg) files.

## Mathematical notation and characters

### Supported in: Pull Requests | Wikis

Both inline and block KaTeX notation is supported in wiki pages and pull requests. The following supported elements are included:

- Symbols
- Greek letters
- Mathematical operators
- Powers and indices
- Fractions and binomials
- Other KaTeX supported elements

To include mathematical notation, surround the mathematical notation with a \$ sign,

for inline, and \$\$ for block, as shown in the following examples:

## **Example: Greek characters**

```
$
\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \kappa,
\lambda, \mu, \nu, \omicron, \pi, \rho, \sigma, \tau, \upsilon, \phi, ...
$
$\Gamma, \Delta, \Theta, \Lambda, \Xi, \Pi, \Sigma, \Upsilon, \Phi, \Psi,
\Omega$
```

#### Result:

$$\begin{split} &\alpha,\beta,\gamma,\delta,\epsilon,\zeta,\eta,\theta,\kappa,\lambda,\mu,\nu,o,\pi,\rho,\sigma,\tau,\upsilon,\phi,\ldots\\ &\Gamma,\Delta,\Theta,\Lambda,\Xi,\Pi,\Sigma,\Upsilon,\Phi,\Psi,\Omega \end{split}$$

## **Example: Algebraic notation**

```
KaTeX

Area of a circle is πr^2

And, the area of a triangle is:

$$
A_{triangle}=\frac{1}{2}({b}\cdot{h})
$$$
```

#### Result:

Area of a circle is  $\pi r^2$ 

And, the area of a triangle is:

$$A_{triangle} = \frac{1}{2}(b \cdot h)$$

## **Example: Sums and Integrals**