

Tokens in Copilot4DevOps

What are AI Tokens?

AI Tokens are like pieces of words in natural language processing. As a user, you consume tokens based on the length of your input and output. One token may include characters, spaces, and punctuation marks.

In English, input and output tokens **may break down** the following ways:

✓ 1 token \approx 4 chars in English

✓ 1 token \approx $\frac{3}{4}$ words

✓ 100 tokens \approx 75 words

For reference, the collected works of Shakespeare are about 900,000 words or 1.2M tokens.

A typical interaction in ChatGPT may have an AI token consumption as shown on the right.

How many tokens you consume depends on the AI model used. Usually, more advanced models consume more tokens.

Among OpenAI products, the gpt-3.5 Turbo, gpt-4, and gpt-4 Turbo models are ideal for developers, BAs, QAs, project managers, and product owners.

You

What is AI requirement? Answer briefly.
<2/2

51

Characters

9

Tokens

ChatGPT

AI requirement management involves utilizing artificial intelligence (AI) to handle, analyze, and optimize the process of eliciting, documenting, and managing project requirements. It employs AI-powered tools to enhance accuracy, efficiency, and decision-making throughout the project lifecycle, ensuring better alignment between stakeholders, improving productivity, and facilitating more effective project outcomes.

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418

Characters

65

Tokens

AI Token Limits and Costs

The maximum number of tokens you can consume is called your **context window**. Here are some examples:

Model	Context Window	Token Consumption Example
ChatGPT-3.5 Turbo	16k tokens	Input: 2000 tokens Output: 1500 tokens Consumption = 3500 tokens
ChatGPT-4 Turbo	128k tokens	Input: 4000 tokens Output: 4192 tokens Consumption = 8192 tokens

The number of tokens is usually mentioned in the following format: 250,000 4k tokens. This refers to the limits of what a model can handle. 250,000 4k means:

✓ 250,000 is the total number of tokens you can consume

✓ 4k (or 4000) tokens is the maximum number of tokens you can consume per interaction

Token Usage in Copilot4DevOps

Copilot4DevOps is available in several models, with a special type of token called a CP4DO Token¹.

The conversion between CP4DO Tokens and OpenAI tokens is as follows:^{2,3}

1 CP4DO Token = 1 gpt-3.5 Turbo Token 16k context

60 CP4DO Token = 1 gpt-4 Turbo Tokens 128k context

- For most use cases, gpt 3.5 is ideal as it is the most cost-effective option. However, gpt 4 Turbo often gives the best results, as it can process larger input/output sizes.
- Token equivalency is subject to change.
- As new gpt models become available, Modern Requirements may add them as an option.