

# Encrypting property values

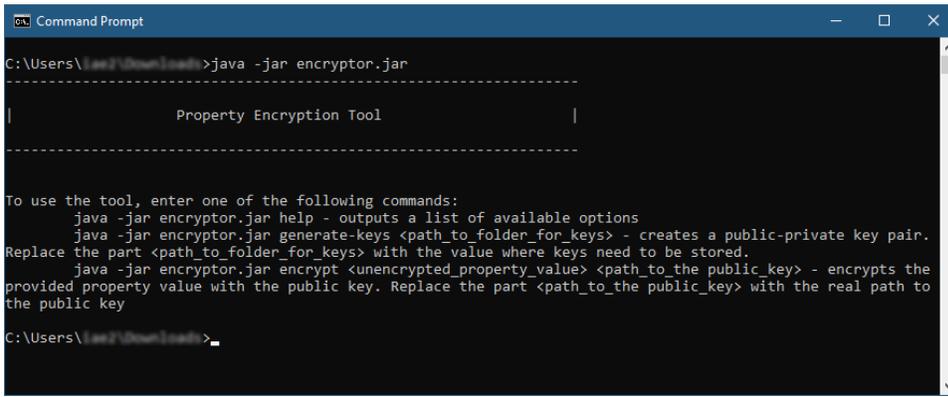
By default, Teamwork Cloud properties are stored as plain text. If required, any of these properties can be encrypted. For property encryption and decryption, you need to generate a pair of keys using our property encryption tool. The tool is provided as the *encryptor.jar* file and the steps below explain how to use it.

## Prerequisites

The encryption tool uses Java 11. Therefore, the system **PATH** variable needs to point to the location of the *bin* folder of the Java 11 home directory, e. g. `C:\Java\Java11\bin` or `/opt/Java/Java11/bin`.

To encrypt Teamwork Cloud properties

1. Click the link to download the [encryptor.jar](#) file.
2. Open the command-line interface and navigate to the directory where the *encryptor.jar* file is located.
3. Run the **java -jar encryptor.jar** command. You should see the information on how to use the tool as displayed below.



```
Command Prompt
C:\Users\user\Downloads>java -jar encryptor.jar
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|                               |
|           Property Encryption |
|                               |
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To use the tool, enter one of the following commands:
  java -jar encryptor.jar help - outputs a list of available options
  java -jar encryptor.jar generate-keys <path_to_folder_for_keys> - creates a public-private key pair.
Replace the part <path_to_folder_for_keys> with the value where keys need to be stored.
  java -jar encryptor.jar encrypt <unencrypted_property_value> <path_to_the_public_key> - encrypts the
provided property value with the public key. Replace the part <path_to_the_public_key> with the real path to
the public key

C:\Users\user\Downloads>
```

4. Run the **java -jar encryptor.jar generate-keys <path\_to\_folder\_for\_keys>** command to generate a pair of keys for property encryption and decryption. Make sure to replace the **<path\_to\_folder\_for\_keys>** placeholder with the actual path to the directory where you want to store the keys. You should see a confirmation that the keys have been successfully generated.

## Keys for encryption and decryption

After executing the command, the following keys are created in the specified directory:

- **propertiesEncryptionKey.pub** - a public key used to encrypt property values.
- **propertiesEncryptionKey** - a private key used to decrypt property values.

5. To encrypt a property, run the **java -jar encryptor.jar encrypt <unencrypted\_property\_value> <path\_to\_the\_public\_key>** command. Make sure to replace the **<unencrypted\_property\_value>** and **<path\_to\_the\_public\_key>** placeholders with the actual property value and the path to the *propertiesEncryptionKey.pub* file. The tool will output the encrypted property value.

