

Instruction for generating CSR and PFX files using Certum Tools

Ver. 1.4

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 **Certum**
by assecO

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1. Product description

The Certum Tools application is used for:

- Generating a CSR request, required to issue the Data Security certificates:
 - SSL
 - S/MIME
 - National Node certificates (Krajowy Węzeł Tożsamości)
- Generating a .pfx file by combining certificate file and the matching private key, previously generated with the CSR, required to install the certificate.

Requirements: to run the application, you need to install the current version of the Java runtime software. The application can also use Java version 8_202.

2. Using Certum Tools application

Run Certum Tools application

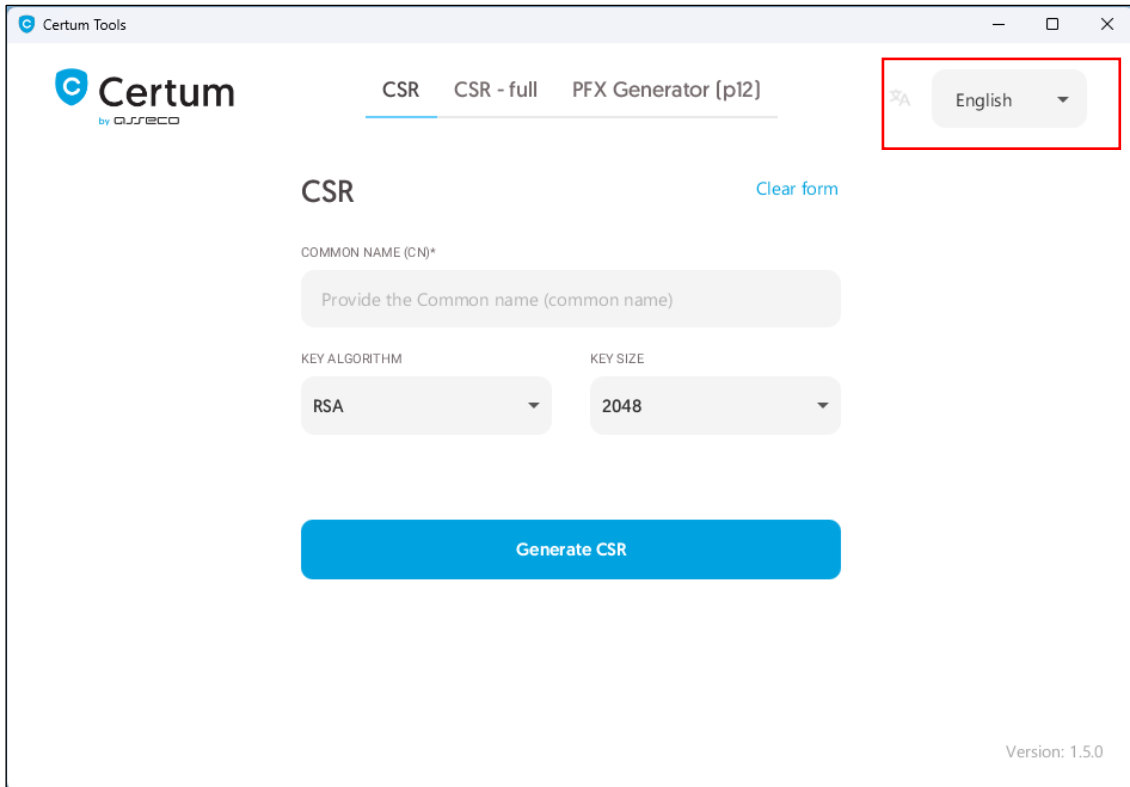
Download the application from <https://support.certum.eu/en/what-is-csr/>. The application is available in two versions: .exe version and .jar version.

The .exe version of the application can be launched by double-clicking on the downloaded file. If you are using the .jar version, you can either run it by double-clicking on the downloaded file or by invoking it to run from the command line.

Change the language in Certum Tools

The application is available in two language versions: Polish and English.

Once you launch the app, you can change its language. Choose the language you are interested in in the language menu in the upper right corner of the application. The application opens in Polish by default.



The screenshot shows the Certum Tools web interface. The browser window title is "Certum Tools". The page has three tabs: "CSR", "CSR - full", and "PFX Generator (p12)". The "CSR" tab is active. In the top right corner, there is a language dropdown menu with "English" selected, highlighted by a red box. The main form is titled "CSR" and includes a "Clear form" link. The form fields are: "COMMON NAME (CN)*" with a text input field containing the placeholder "Provide the Common name (common name)"; "KEY ALGORITHM" with a dropdown menu set to "RSA"; and "KEY SIZE" with a dropdown menu set to "2048". A large blue "Generate CSR" button is at the bottom. The version "Version: 1.5.0" is displayed in the bottom right corner.

Generate CSR file

To generate the CSR and private key, select the CSR tab and start filling the fields that you want to include in the certificate.

In the Common Name field, depending on the certificate, you can provide:

- For SSL certificates: domain name (for a Wildcard certificate remember to add the asterisk)
- For S/MIME certificates: depending on the certificate: e-mail address, name and surname or organization name
- For Code Signing certificates: depending on the certificate: name and surname or organization name
- For the National Identity Node certificate: organization name.

If you want to include more fields in the CSR such as organization or address details, use the **CSR - full** tab. Certum systems offer to define the values of these fields when providing the data for the certificate and there is no need to provide them in the CSR.

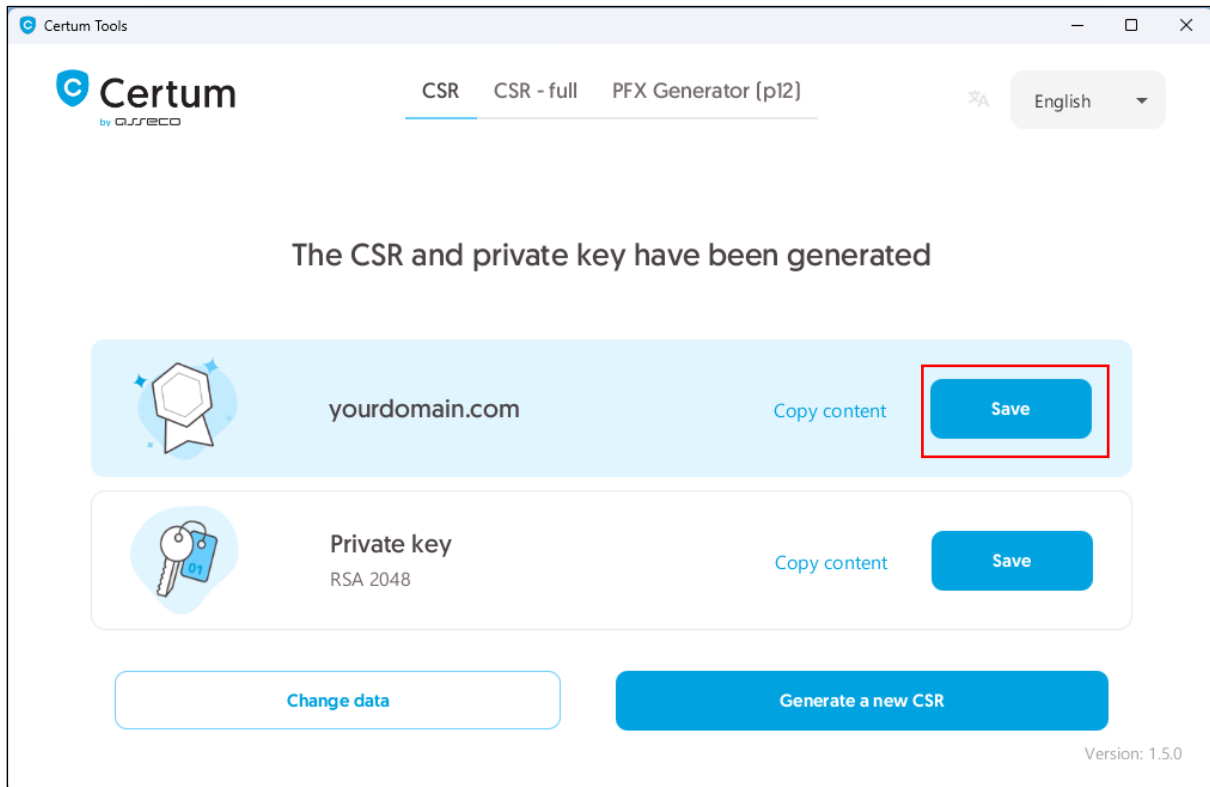
After completing the fields, choose the key algorithm and its length. After completing all necessary fields, click the **Generate CSR** button.

NOTE: Remember that for the National Node certificate it is necessary to use the EC algorithm.

Save CSR file

After clicking **Generate CSR**, the following files will be generated:

- CSR, the content of which must be copied or saved and provided when activating the certificate
- Private key, which must be saved on your computer. It will be required to create the certificate file and install it.



After clicking **Save**, the files will be saved in the selected folder on disk. Save the private key because you will need it for the next step, which is to create the .pfx file.

Create .pfx certificate file

The .pfx file is required to install the certificate. It will be created from the previously saved private key and certificate file. The issued certificate can be downloaded from an e-mail or from your account in the Certum store.

Download certificate

Once the certificate is issued, download it from the certificate creation e-mail or from the **Certificate details** view in the Data Security Products in your Certum store account. The file can be saved in two encodings:

- **Download PEM** will download the certificate plain text file in .pem format
- **Download DER** will download the certificate file in binary .cer format.

After downloading, the files will be saved to disk. If you have problems finding downloaded certificates, check the Downloads folder and search for files with the certificate serial number in the name.

Generate .pfx file

Select the **PFX Generator (p12)** tab in the Certum Tools application.

- In the **Certificate** section, load or paste the contents of the certificate file
- In the **Private key** section, load or paste the contents of the private key file.

Then, set a password for the .pfx file and remember it. It will be required to install the certificate.

After clicking **Generate PFX**, the file will be available for saving on disk in the selected folder.

The screenshot displays the Certum Tools application window with the 'PFX Generator (p12)' tab selected. The interface is organized into three main sections, each with a green checkmark icon on the left side of a vertical progress indicator:

- Certificate:** Includes a text input field containing a sample certificate text block:


```
-----BEGIN CERTIFICATE-----
MIIGTjCCBTagAwIBAgIQZh16VW3Uebwh0GX1Gk4msTANBgkqhkiG9w0BAQsFADCBhTElMAkGA1UE
BhMCUEwxIjAgBgNVBAoTGVVuaXpldG8gVGVjaG5vbG9naWVzIFMuQS4xJzAlBgNVBAStHkN1cnR1
bSBZDZkxJ0aWZpY2F0aW9uIEF1dGhvcml0eTEpMCcGAlUEAxMgQ2VydHVtIERvbWVpbiBwYXp2GF0
```

 Below the input field are two buttons: 'Load certificate file' and 'Paste again'.
- Private key:** Includes a text input field containing a sample private key text block:


```
-----BEGIN RSA PRIVATE KEY-----
MIIEpAIBAAKCAQEAFDSseqOBzHVSPL6kABkrZFK+NzboF6aj4ZEmEXKOj40EojW
qD3/nL8klp7D4Leo11ij5CWgyOg1OimAh t1NIYkJbNfj f43RuzIGdxU2RdMkXnWg
62anKJmYD0uyofJ13ac9vJbKnlX4i9BcprC2rcq5CQln9Hn rzCR1GluGydiFJoH
```

 Below the input field are two buttons: 'Load private key file' and 'Paste again'.
- Password:** Includes a password input field with a strength indicator below it showing 'Valid'. A red box highlights the 'Generate PFX' button at the bottom.

Additional interface elements include a 'Clear form' button, a language dropdown set to 'English', and a version number '1.5.0' in the bottom right corner.