

CloudSME AppCenter

Software Publishing Guide

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About This Guide

The “CloudSME AppCenter Software Publishing Guide” has been designed to assist you during the process of publishing of your software product in the CloudSME AppCenter (hereinafter referred to as CloudBroker AppCenter).

You will learn how to successfully create your software, perform all the necessary configurations including pricing and then actually offer the software for usage.

Each chapter consists of the detailed description of the subject matter, visualized with screenshots.

Introduction

Each user with the software vendor role can publish his or her software in the AppCenter. To find out how to become a software vendor please consult the “CloudBroker AppCenter Getting Started Guide”.

So let’s assume that you are a logged in user with the software vendor role. Let us start publishing your software in the AppCenter.

1. Adding New Software: Initiating the Process

To be able to add new software, you should be logged in. Once logged in, you can initiate the process of software creation by clicking the “Add new software” button available at the top of the page:



Figure 1 - Adding New Software form the Main Page

You can also initiate the process of adding new software by pressing “Add new software” button available on the vendor page. To do so, press “My Page” button available at the top of the page near your user name. You will be redirected to the page where all you software and organization information is stored. Once on this page, press “Add new software” button available at the upper left corner of the page:

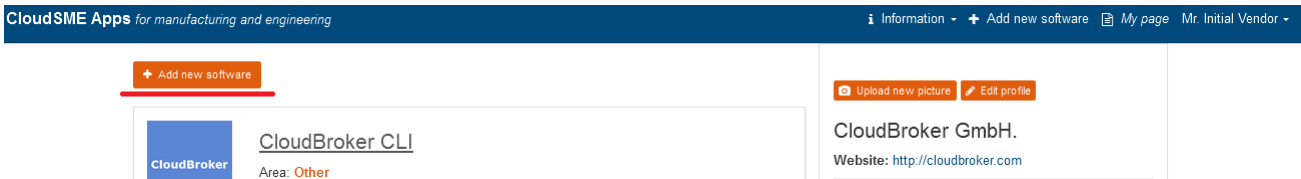


Figure 2 - Adding New Software from the Vendor Page

Alternatively, you can add new software from the “My Software” page available under user menu. To do so, click on your name available at the upper right corner, then go to “My Profile” – “My software” and press the “Add new software” button available at the end of the list.

After the “Add new software” button is pressed, you will see the “Add new software” form. The form contains the following fields to be populated:

- Product. Specify here the name of your product.
- Version. Specify here the version of your product.
- Software Area. Select the software area your product belongs to.

Once all the fields are populated, press “Save” button to proceed to the next software publishing step.

Add new software

You are about to publish a new software.

To publish your software please populate the suggested fields to complete the first step of software publishing. Once the initial step is finished, you will be able to add more information about you software.

Please specify your software product name. You can specify the software version, if applicable.

*** Product**
Hello World

Version
1.0

Software area
Computational fluid dynamics

Save

Figure 3 - Adding New Software: Initial Step

Once the “Save” button is pressed, you will be redirected to the software constructor, “General Settings” tab.

End-user's view **General Settings** Prepare for production

Upload new picture

+ Add CloudBroker Platform account

+ Add software usage

+ Add Software description

General info

Usable only using API

*** Product**
Hello World

Version
1.0

Software area
Computational fluid dynamics

Keywords

Short description

Save

Delete this software

Figure 4 - Software Constructor, General Setting Tab

On this tab a software vendor can:

- edit software general info;
- add software description;
- add software usage;
- add billing;
- add CloudBroker Platform account to integrate the CloudBroker AppCenter with the Cloudbroke Platform.

All the mentioned actions are described in the next chapters of the guide.

2. General Settings

2.1 General Settings: Specifying General Info

On the “General Settings” tab you can specify and edit the following general info about your software:

- Upload new picture. Upload an icon for your software.
- Usable only using API. Tick this checkbox in case you do not want your customers to use the software through UI. In this case it will be possible to use your software only through API.
- Product. Specify here the name of your product.
- Version. Specify here the version of your product.
- Software area. Select the software area your product belongs to.
- Keywords. Specify keywords that should be used to locate your software by using the AppCenter search functionality.
- Short description. Specify here short description for your software that will be displayed on the tile associated to your application.

Please see the figure below for example of the populated general info:

End-user's view **General Settings**

CloudBroker

Upload new picture

General info

Usable only using API

* Product
Hello World

Version
1.0

Software area
Other

Keywords
cloudbroker, web site, cloud software, cloud consulting

Short description
CloudBroker software makes it easy to deploy and run applications in the cloud. For compute-intensive

Save

Delete this software

Figure 5 - Specifying General Info

2.2 General Settings: Specifying Software Usage

To specify software usage, press “Add software usage” available on the “General settings” tab:

End-user's view **General Settings** Prepare for production

CloudBroker

Upload new picture

General info

Usable only using API

* Product
Hello World

+ Add CloudBroker Platform account

+ Add software usage

+ Add Software description

Figure 6 - Adding Software Usage

Once pressed, you will be offered to select software type. Depending on the type, different software usage scenarios will be available for your application. The following software types are available in the CloudBroker AppCenter:

- Cloud Application.
- Desktop.
- Web Service.
- Development Tool.

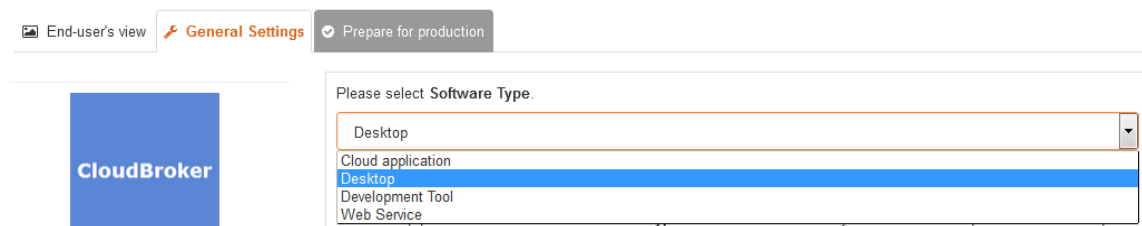


Figure 7 - Selecting Software Type

To be able to select the Cloud Application software type, you will need to integrate your CloudBroker Platform Account with the AppCenter first. Please see our “CloudBroker AppCenter and CloudBroker Platform Integration Guide” for integration details.

As it was mentioned, depending on the type different software usage scenarios will be available for your application. The further subchapters will describe how to create different software usage types for particular software types.

2.2.1 Software Type: Desktop

Select Desktop software type in case your software should be downloaded by customers and run on a client machine.

Once selected, determine software usage type using the “Software action type” dropdown. The following software action types are available for the Desktop software:

- Download. This software usage will allow users to download your software from the CloudBroker AppCenter.
- API session. This software usage will allow you to charge your customers using the CloudBroker AppCenter API while they are using your software on their own computers.

In case you select Download action type, you will be asked to upload a software file to a corresponding form to make it available in the CloudBroker AppCenter. Please see the figure below:

Please select **Software Type**.

Desktop

Desktop software type means that your software will run on the client machine.

On this step please determine **Software action type** - how the users will use your software. The options listed here depend on the software type which you have chosen previously.

Download

Download
API session

the form below to make it available in the CloudSME Apps.

Upload software file

File

Browse_ No file selected.

Save

Figure 8 - Software Usage: Download

Once the file is uploaded, press “Save” to proceed with the software creation.

2.2.2 Software Type: Web Service

Select Web Service software type in case you have your own Web Service and you would like the CloudBroker AppCenter to redirect users to your service.

Once selected, determine software usage type using the “Software action type” dropdown. The following software actions type are available for the Web Service:

- Simple redirect. Select this Software Usage to redirect users to your web site.
- Params redirect. Select this Software Usage if you would like not just to redirect a user to your web site, but also specify GET parameters that will be added to the site's URL. The user will be asked to specify value for these parameters before redirecting.
- API session. This software usage will allow you to charge your customers using the CloudBroker AppCenter API while they are using your software on their own computers.

In case you select Simple redirect action type, you will be asked to provide the web site URL in a corresponding field. Please see the figure below:

Please select **Software Type**.

Web Service

You have own Web Service and you want the CloudSME Apps to redirect users to your service.

On this step please determine **Software action type** - how the users will use your software. The options listed here depend on the software type which you have chosen previously.

Simple redirect

Select this Software Usage to redirect users to your web site. Please provide the web site URL below.

Redirect action data

URL

http://cloudbroker.com/

Save

Figure 9 - Software Usage: Simple Redirect

In case you select Params redirect action type, you will be asked to provide the web site URL and corresponding parameters in a corresponding form. Please see the figure below:

Please select **Software Type**.

Web Service

You have own Web Service and you want the CloudSME Apps to redirect users to your service.

On this step please determine **Software action type** - how the users will use your software. The options listed here depend on the software type which you have chosen previously.

Params redirect

Select this Software Usage if you would like not just redirect a user to your web site, but also specify GET parameters that will be added to the site's URL. The user will be asked to specify value for these parameters before redirecting.

Redirect action data

URL

http://

1-st parameter

Alias for user

Figure 10 - Software usage: Params redirect

2.2.3 Software Type: Cloud Application

Select Cloud Application software type in case you would like to run your software in the cloud through CloudBroker Platform.

Once selected, determine software usage type using the “Software action type” dropdown. The following software actions type are available for the Cloud Application:

- Run in the cloud with fixed resource selection, meaning that the jobs will be run on a resource specified by the vendor during software publishing.
- Run in the cloud with flexible resource selection, meaning that end-users can select on which resource their job is to be run.

In case you select **Run in the cloud with fixed resource selection** action type, you will be asked to provide the following generic job parameters.

- Software. Select the software you would like to publish from the list of available software on the CloudBroker Platform. **Please note, that you cannot publish software which visibility is Private on the Platform.** So you will require to have your CloudBroker Platform software visibility status Public or Protected to be able to publish it in the AppCenter.
- Executable. Select the executable for your software from the list of available executables on the CloudBroker Platform.
- Resource. Select the resource that will be used by your customers to run your software.
- Region. Select the region where your customers will run your software.
- Instance Type. Select the instance type that will be used by your customers to run your software.
- Argument string. Provide sequence of command line parameters for the selected executable. Please note that often the argument string should reflect the selected number of nodes.
- Argument string is fixed and end-user will be not able to input own one. Tick this checkbox in case users should not be able to provide their own argument string for their jobs. If the checkbox is not ticked, end users will be able to provide their own argument string to run jobs.
- Nodes. Type the total number of instances you would like to use for your job execution. Default number of nodes is one.
- Data input type. Provide here the same data input type that is used on the CBP to run jobs for your software. You can specify here either “input” if the input file will be read in by the job automatically or “stdin” if it is standard input on the command line.

Please see the figure below:

Please select **Software Type**.

Cloud application

Software will be executed in the cloud through the CloudBroker Platform.

On this step please determine **Software action type** - how the users will use your software. The options listed here depend on the software type which you have chosen previously.

Run in the cloud with fixed resource selection

Choose this option to run this software in the cloud through CloudBroker Platform.

Generic job parameters

Software
Hello World

Argument string is fixed and end-user will be not able to input own one

Executable
Hello_World.sh

Argument string

Resource
Amazon EC2 My Resource

Nodes
1

Data input type
input

Region
US Standard

Instance Type
Amazon EC2 My Resource Baseline performance - micr

Save

Figure 11 - Software Usage: Run in the Cloud with Fixed resource Selection

In case you select **Run in the cloud with fixed resource selection** action type, you will be asked to provide the following generic job parameters:

- **Software.** Select the software you would like to publish from the list of available software on the CloudBroker Platform.
- **Executable.** Select the executable for your software from the list of available executables on the CloudBroker Platform.
- **Argument string.** Provide sequence of command line parameters for the selected executable. Please note that often the argument string should reflect the selected number of nodes.
- **Argument string is fixed and end-user will be not able to input own one.** Tick this checkbox in case users should not be able to provide their own argument string for their jobs. If the checkbox is not ticked, end users will be able to provide their own argument string to run jobs.
- **Nodes.** Type the total number of instances you would like to use for your job execution. Default number of nodes is one.

- Data input type. Provide here the same data input type that is used on the CBP to run jobs for your software. You can specify here either “input” if the input file will be read in by the job automatically or “stdin” if it is standard input on the command line.

Please see the figure below:

The screenshot shows a web-based configuration form for software usage. At the top, it asks to select a 'Software Type', with 'Cloud application' chosen. Below this, it explains that software will be executed in the cloud through the CloudBroker Platform. The next step is to determine the 'Software action type', with 'Run in the cloud with flexible resource selection' selected. A note indicates that options depend on the software type. Under 'Generic job parameters', there are several fields: 'Software' (Hello World), 'Executable' (Hello_world.sh), 'Argument string' (empty), 'Nodes' (1), and 'Data input type' (input). There is a checkbox for 'Argument string is fixed and end-user will be not able to input own one' which is unchecked. A 'Save' button is located at the bottom right.

Figure 12 - Software Usage: Run in the Cloud with Flexible Resource Selection

The rest of the job parameters will be selected by a user when launching your software.

Once all the required job parameters have been specified, press “Save” to proceed with the software publishing.

2.3 General Settings: Specifying Billing

Software vendors can charge end-users for software usage from the AppCenter. Depending on software type, different charging options are available.

The billing mechanism for software is specified by a vendor on the “Billing” step during software publishing process. It can also be specified or changed during software editing.

Please note that the billing methods available for particular software depend on the software type. Please see the table below to find out which pricing methods are available for particular software types.

Software Type	Software Usage Type	Pricing Methods available	Pricing Method Description
Desktop	Download	Per one download	Charge per single download of your application
	API Session	Per second	Charge per one second of application usage
		Per minute	Charge per one minute of application usage
		Per hour	Charge per one hour of application usage
		Per day	Charge per one day of application usage
		Per week	Charge per one week of application usage
		Per month	Charge per one month of application usage
		Per year	Charge per one year of application usage
		Per one usage	Charge per one application usage
Web Service	Simple Redirect	Per one usage	Charge per single redirect
	Params Redirect		
	API Session	Per second	Charge per one second of application usage
		Per minute	Charge per one minute of application usage
		Per hour	Charge per one hour of application usage
		Per day	Charge per one day of application usage
		Per week	Charge per one week of application usage
		Per month	Charge per one month of application usage
		Per year	Charge per one year of application usage
Per one usage	Charge per one application usage		
Cloud Application	Run in the cloud	Per second	Charge per one second of running a job
		Per minute	Charge per one minute of running a job
		Per runtime hour	Charge per one hour of running a job
		Per one usage	Charge per one job running

		Per real usage (as reported by the CloudBroker Platform)	A user is charged the full cost of the simulation reported by the CloudBroker Platform.
		Per one download	Charge per single download of your application
Development tool	Download	Per one download	Charge per single download of your application

Table 1 - Pricing methods by software type

To specify billing process for your software, press “Add billing” available on the “General settings” tab:

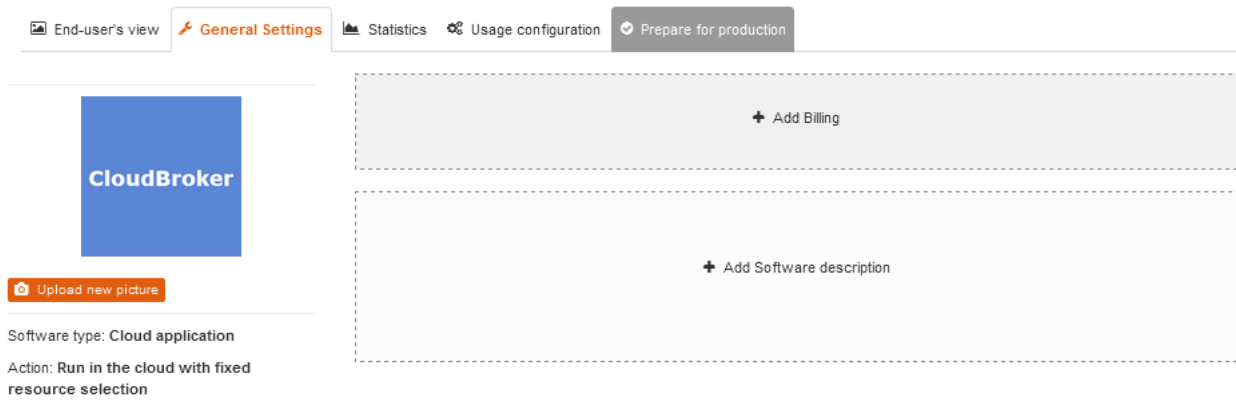


Figure 13 - Adding Billing

On this step a vendor can specify needed pricing method and set the price. Please see the figure below:

Figure 14 - Pricing configuration

If a vendor creates a cloud application, in addition to the pricing method and price the vendor needs to specify vendor income percent on this step. **Vendor income percent** is the percent of each payment made by end-user that will not be used to increase user balance on the CloudBroker Platform but will be pure vendor's income. The rest of the payment amount will automatically increase user balance on the CloudBroker Platform. Please see our “CloudBroker AppCenter Billing Guide” to learn more about the billing process.

Once all the billing information is filled, press “Save” button to proceed with the software publishing.

2.4 Subscriptions

Vendors can offer subscriptions for their software to allow users to subscribe on monthly basis.

To create a subscription, the following items should be specified by a vendor:

- Name. Specify a name for your subscription.
- Monthly fee. Specify fee to be paid by users per month of subscription usage.
- Credits included. Provide number of free credits included into subscription.
- Additional credit price. Specify credit cost beyond the free monthly runs.
- Unlimited credits. Tick this box in case you want your users to have unlimited software usage for a month. No additional credits beyond the monthly fee will be needed to use the software.

Please see the Figure 16.

A subscription can be either required or non-required for software usage. The subscription options are described below:

- **Software does not require subscription.** This option means, that end-users can use the software either after buying subscription (and thus follow the subscription conditions), or without buying a subscription and just pay the price specified by the software vendor on the “Billing” step during software publishing.
- **Subscription necessary for usage.** This option means, that it will be impossible for end-user to use the software without buying a subscription.

In addition, software vendors can restrict access to user data if subscription expires. Please see the Figure 15.

2.4.1 Creating a Subscription

A vendor can create subscriptions for his software during the software publishing process. To do this, he or she needs to press “Add new software” button, specify software title, version and area. After that it is necessary to specify software usage. Once usage is set, the software vendor can go to the “Billing” step. Once billing step is over, the vendor can create a subscription by going to the “Subscriptions” tab of the software constructor.

After selecting one of the subscription options (either required or non-required), the vendor can create a subscription by pressing a “New Subscription” link. Please see the figure below:

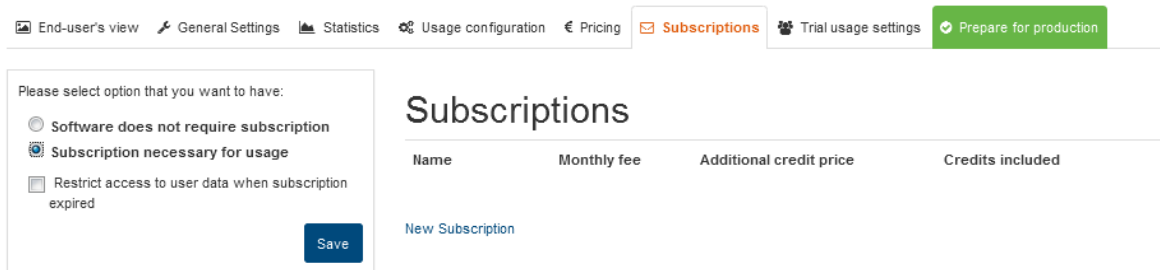


Figure 15 - New subscription

After that the user will be redirected to the “New Subscription” page, where he can specify the subscription settings already mentioned in the previous section:

- Subscription name.
- Monthly fee.
- Credits included.
- Additional credit price.

Please see the figure below:

New subscription

* Name
New Demo Subscription

* Monthly fee (€)
50

Unlimited credits

* Credits included
100

Additional credit price (€)
5

< Back Save

Figure 16 - New subscription configuration

Once the subscription is created, it can be seen on the software show view. Please see the figure below:

MySoftware

€ 10.00
per single job launch

0
Job runs

▶ Run job 🛒 Buy credits

Subscriptions available:

New Demo Subscription € 50.00
per month

€ 0.01
additional credit price

✓ 100 Job runs included 🛒 Buy

Provided by:

CloudBroker CloudBroker GmbH

Figure 17 - Subscription display

3 Granting Test Credits to AppCenter End-Users

3.1 Granting Test Credits to a Specific End-User

Software vendors can grant test credits to any AppCenter user. To do this, a vendor should go to the show view of the software credits for which should be granted. Then go to the “Trial Usage Setting” tab of the software constructor and press “Grant Credits” button. Please see the figure below:

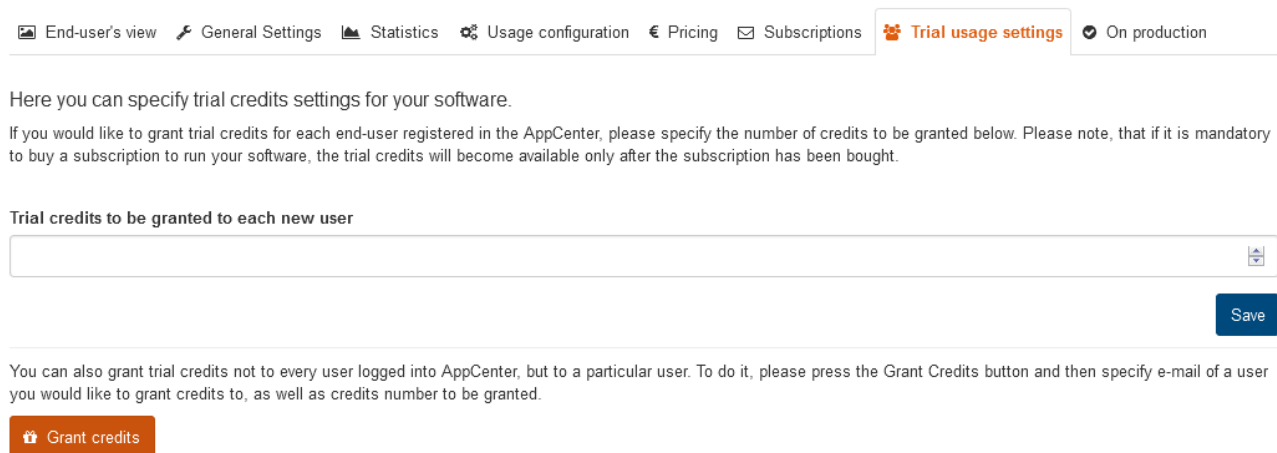


Figure 18 - Granting credits to a specific AppCenter user

The vendor will be redirected to the “Grant Credits” page where credits for the software can be granted to any user by specifying his or her e-mail. The following fields are required to be populated to grant credits to a user:

- User. Specify the e-mail address under which a user is registered on the AppCenter to grant credits to this specific user.
- Credits number. Specify the number of credits you would like to grant to the user.

Please see the figure below:

Grant credits

Software:	MySoftware
User:	<input type="text" value="appcenter-end-user@cloudbroker.com"/>
Price for one credit:	€ 10.00 per single job launch
Credits number:	<input type="text" value="1"/>
Total:	€ 10.00 <small>minimum payment: € 10.00</small>

Figure 19 - Grant Credits page

Once granted, the user gets the credits and can spend them to use this specific software.

3.2 Granting Test Credits to Every User Registered in the AppCenter

Software vendors can grant test credits to every new user registered in the AppCenter. To do this, a vendor should go to the show view of the software credits for which should be granted. Go to the “Trial Usage Settings” tab of the software constructor and specify the number of credits that should be granted in the “Trial credits to be granted to each new user” field, press “Save”. Please see the figure below:

End-user's view | General Settings | Statistics | Usage configuration | Pricing | Subscriptions | **Trial usage settings** | On production

Here you can specify trial credits settings for your software.

If you would like to grant trial credits for each end-user registered in the AppCenter, please specify the number of credits to be granted below. Please note, that if it is mandatory to buy a subscription to run your software, the trial credits will become available only after the subscription has been bought.

Trial credits to be granted to each new user

Figure 20 - Granting credits to every new user

After that the number of credits specified in this field will be granted to every new user registered in the AppCenter.

4 Changing Status of your Software

Once you have specified all the necessary setting for your software, you can change status of your software to be one of the following:

- Active, meaning you software can be bought and used by end-users.
- Coming Soon, meaning that the AppCenter users will be able to see the information related to your software but will not be able to run it.

To change the status of your software, go to the “Prepare for production” tab of the software constructor and either press “Make software Coming Soon” or “Go to production” button:

- “Make software Coming Soon” button will set the status of your software to be “Coming Soon”.
- “Go to production” button will set the status of your software to be “Active”.

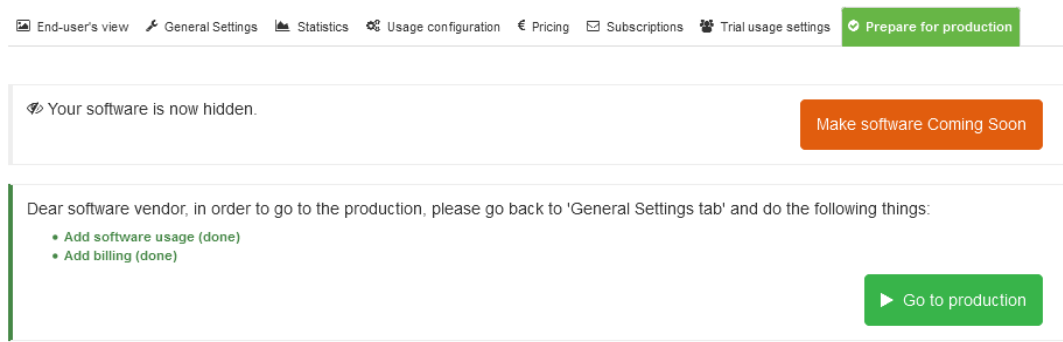


Figure 21 - Preparing for Production

Please note, that once you have activated your software the “Prepare for production” tab will change its title to “On Production”.

You can also easily transfer your software to the Hidden status from the Coming Soon.

To do this, go to the “Prepare for production tab” of the software constructor and press “Hide software” button:

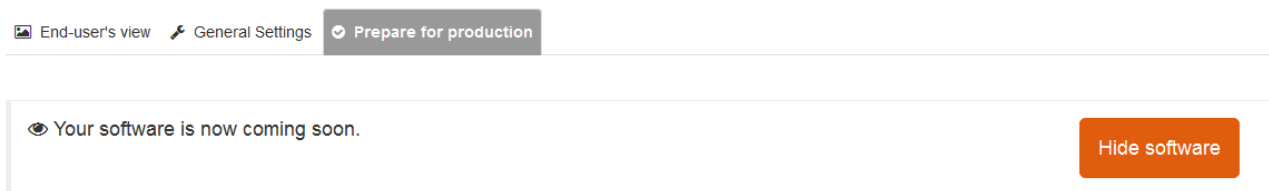


Figure 22 - Changing Software Status to Hidden

After this your software will be hidden from the AppCenter users. Please note, that only “Coming Soon” software can be hidden. Active software can only be deactivated.

To deactivate active software go to the “On production” tab of the software constructor and press “Deactivate” button:

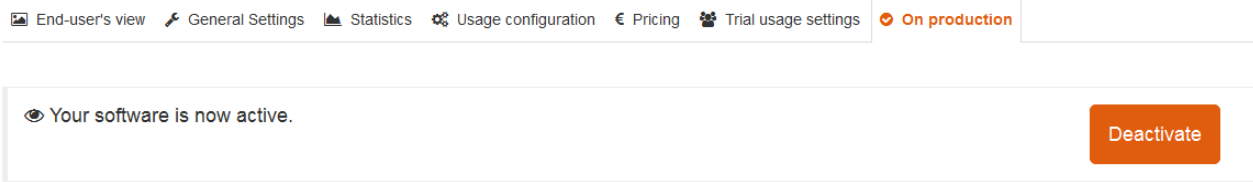


Figure 23 - Deactivating Software

As soon as you deactivate software, it becomes invisible for all the users that did not use it. For the users that used the software or still have credits for it, the software will remain visible but a corresponding notification informing the users that the software is deactivated will be displayed, and the users will not be able to use your software until it is active again.

You can activate the deactivated software by going to “On production” tab and pressing “Activate” button. After that your software will be again available for usage.

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