



"Google Sheets"

1		1
2		1
3	Google Sheets	2
4		3
5		3
6	API	7
7		14
8		16

4

Plug-in -

Advanced Serial Data Logger

5

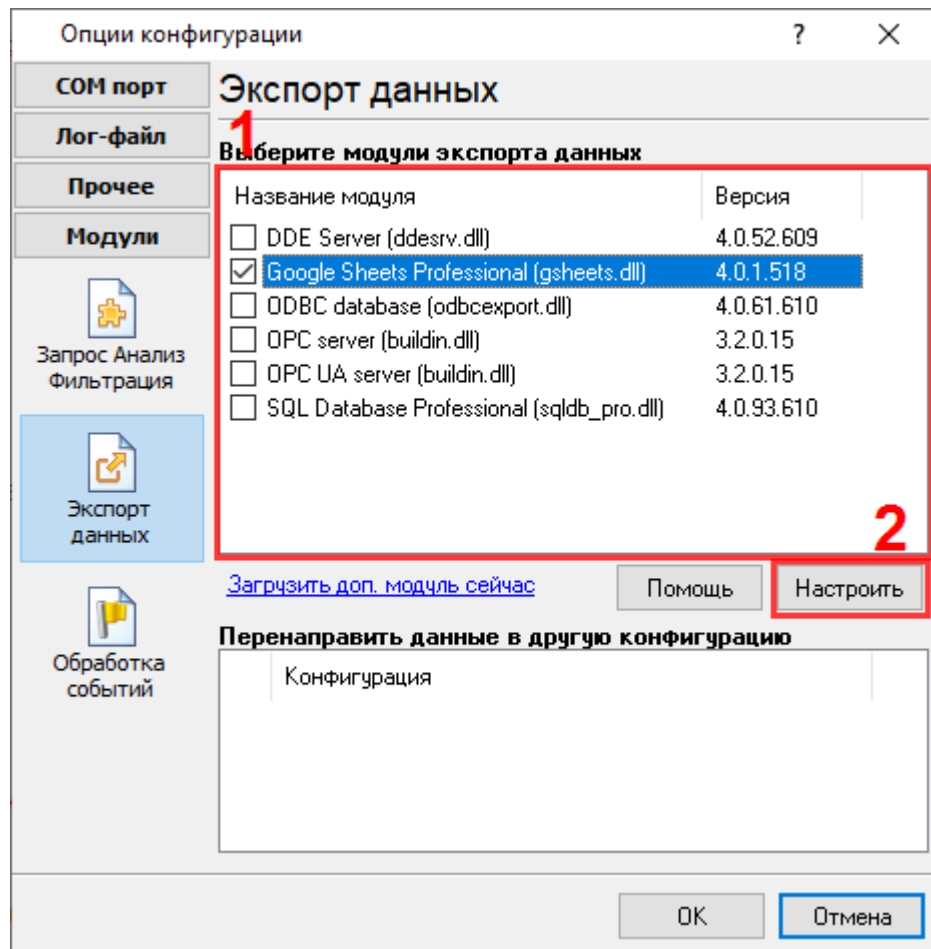
Sheets.

Google

1. (, Advanced Serial Data Logger).

2. "

3. "Google Sheets Professional" (. 2).



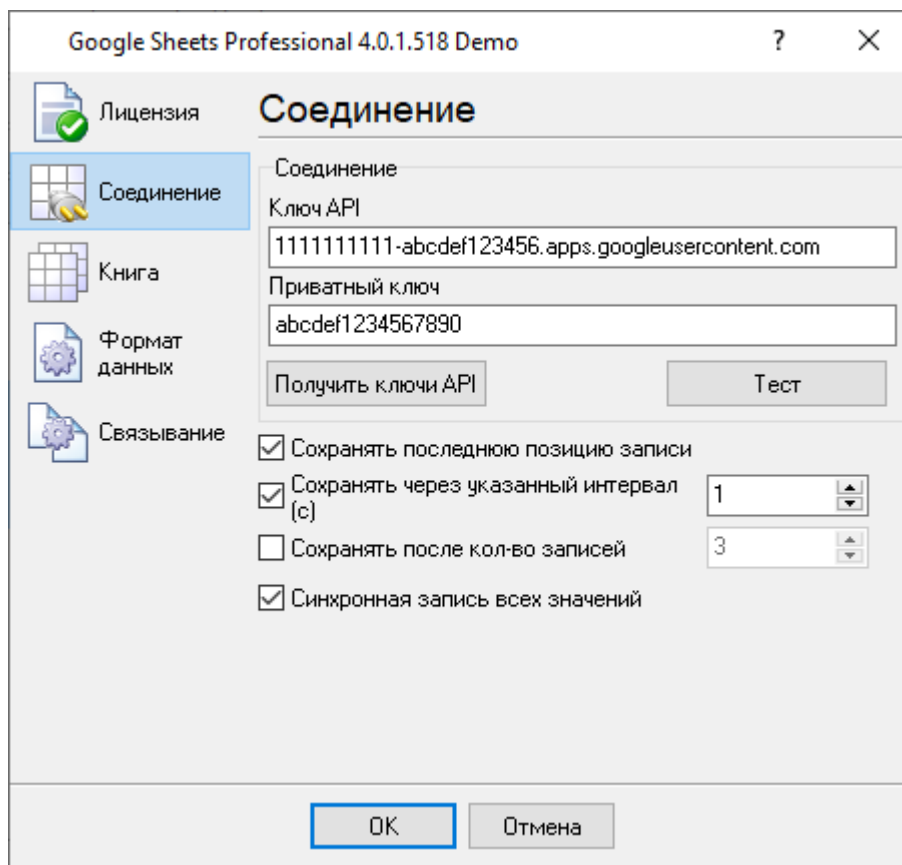
. 2.

4.

5.

" "

" (. 3).



. 3.

Google Sheets

API,

Google.

Google Sheets.

Google Sheets, Google
Google Sheets API.

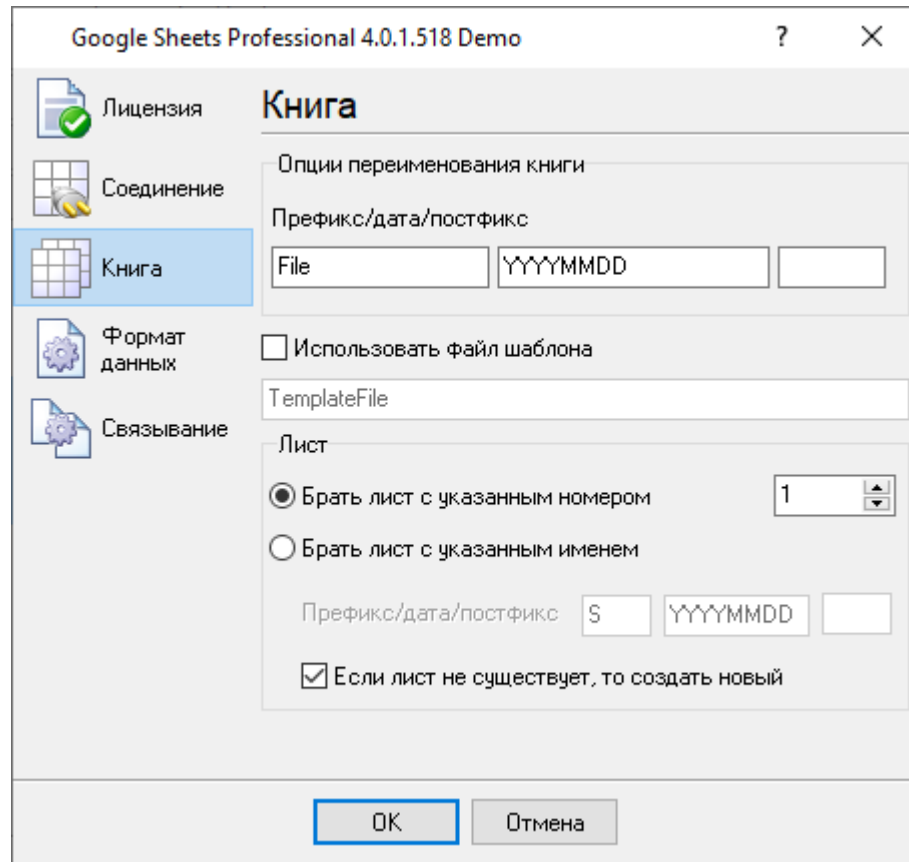
(),

API.

(workbook)

(worksheet).

" (. 4).



. 4.

1. ...
 2. ...
- ...
 - ...
- Google Sheets

6 API

1. Google,
2. ["Google API"](#).
3. "Credentials" ().
4. (. 5).

The screenshot shows the Google Cloud console interface. At the top, there is a navigation bar with the Google Cloud logo, a 'Select a project' dropdown, a search bar, and utility icons. Below this is a sidebar menu with 'APIs & Services' selected, and 'Enabled APIs & services' highlighted with a red box. The main content area shows a message: 'To view this page, select a project.' with a 'CREATE PROJECT' button highlighted with a red box. The page title is 'Google API'.

Google Cloud Search (/) for resources, docs, products, and i

New Project

Warning: You have 12 projects remaining in your quota. Request an increase or delete projects. [Learn more](#) [MANAGE QUOTAS](#)

Project name *
MyTokens ?

Project ID: mytokens. It cannot be changed later. [EDIT](#)

Location *
No organization [BROWSE](#)

Parent organization or folder

CREATE **CANCEL**

. 6

5.

OAuth

Google Cloud MyTokens Search (/) for resources, d... Search

API APIs & Services [←](#) Create OAuth client ID

- Enabled APIs & services
- Library
- Credentials**
- OAuth consent screen
- Page usage agreements

A client ID is used to identify a single app to Google's OAuth servers. If your app runs on multiple platforms, each will need its own client ID. See [Setting up OAuth 2.0](#) for more information. [Learn more](#) about OAuth client types.

Warning: To create an OAuth client ID, you must first configure your consent screen

CONFIGURE CONSENT SCREEN

Fig. 7 Creating OAuth client ID

Google Cloud MyTokens Search (/) for resources, d... Search

API APIs & Services OAuth consent screen

- Enabled APIs & services
- Library
- Credentials
- OAuth consent screen**
- Page usage agreements

Choose how you want to configure and register your app, including your target users. You can only associate one app with your project.

User Type

Internal ?

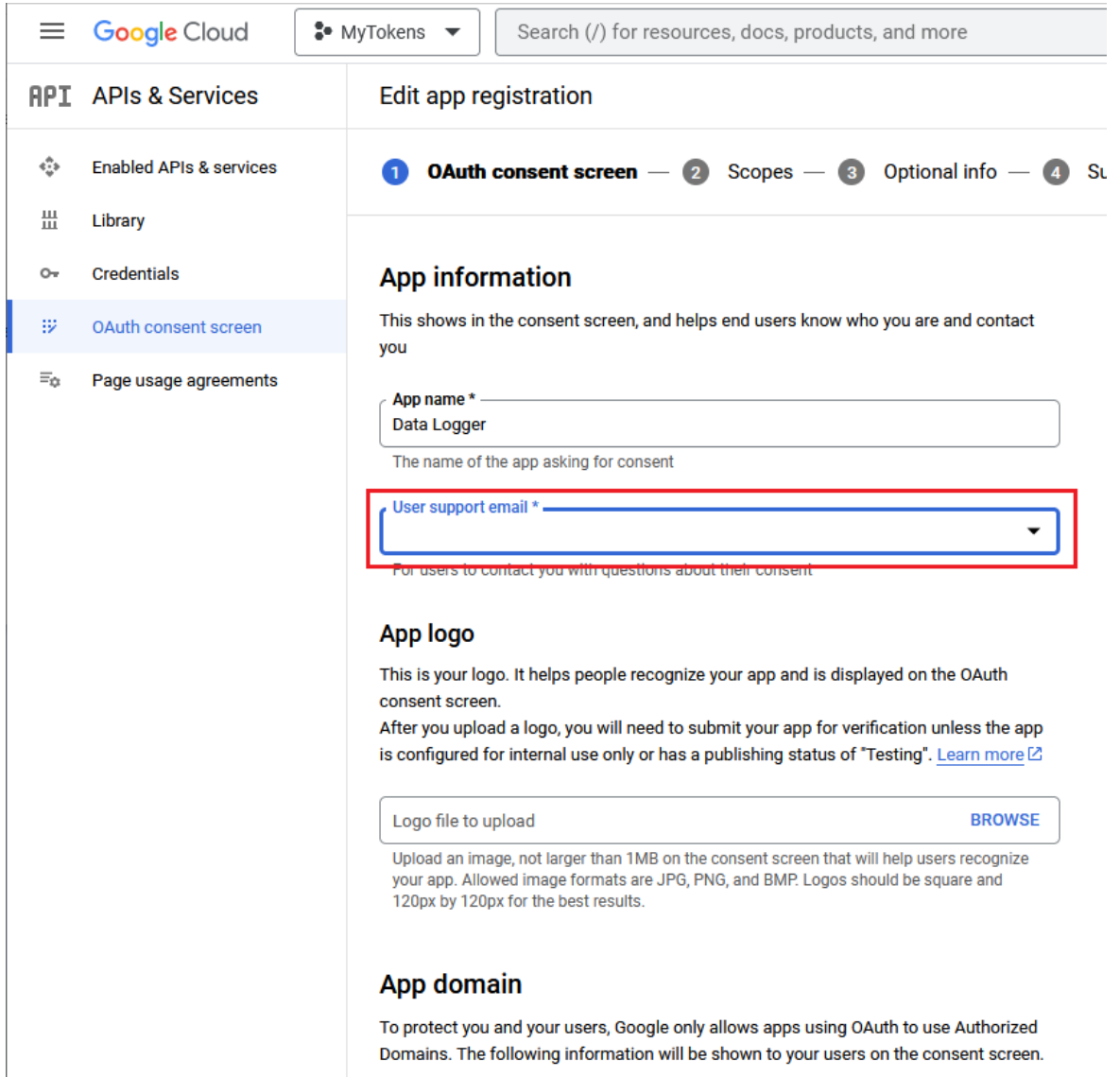
Only available to users within your organization. You will not need to submit your app for verification. [Learn more about user type](#)

External ?

Available to any test user with a Google Account. Your app will start in testing mode and will only be available to users you add to the list of test users. Once your app is ready to push to production, you may need to verify your app. [Learn more about user type](#)

CREATE

- Scopes -
- Optional info -
- Summary -



. 9 **OAuth**

6. OAuth "Create credentials - Create OAuth client ID"
(. 10):

- : Web Application.
- :
- "Authorized redirect URIs" () :
- <http://localhost:8888> " " " " .

Google Cloud MyTokens Search (/) for resources, docs, products, and more

API APIs & Services

- Enabled APIs & services
- Library
- Credentials**
- OAuth consent screen
- Page usage agreements

Create OAuth client ID

A client ID is used to identify a single app to Google's OAuth servers. If your app runs on multiple platforms, each will need its own client ID. See [Setting up OAuth 2.0](#) for more information. [Learn more](#) about OAuth client types.

1 Application type * Web application

Name * MySheets

The name of your OAuth 2.0 client. This name is only used to identify the client in the console and will not be shown to end users.

The domains of the URIs you add below will be automatically added to your [OAuth consent screen](#) as [authorized domains](#).

Authorized JavaScript origins

For use with requests from a browser

+ ADD URI

Authorized redirect URIs

For use with requests from a web server

3 URIs 1 * http://localhost:8888

2 + ADD URI

Note: It may take 5 minutes to a few hours for settings to take effect

4 CREATE CANCEL

. 10 Google API



"Client ID" " API"

"Client secret" " (. 11)

OAuth client created

The client ID and secret can always be accessed from Credentials in APIs & Services

i OAuth is limited to 100 [sensitive scope logins](#) until the [OAuth consent screen](#) is verified. This may require a verification process that can take several days.

Client ID	d4drftfulveicr8pl157lkt1b9nh2a5t.apps.googleusercontent.com	
Client secret	GOCSPX-r3GnPiyvYON051n8F...	
Creation date	August 11, 2023 at 12:37:20 PM GMT+3	
Status	✔ Enabled	

[↓ DOWNLOAD JSON](#)

OK

. 11 Google API

API (. 12).

Google Cloud MyTokens Search (/) for resources, docs, products, and more Search


APIs & Services Credentials + CREATE CREDENTIALS DELETE RESTORE DELETED CREDENTIALS

Create credentials to access your enabled APIs. [Learn more](#)

API Keys

<input type="checkbox"/>	Name	Creation date ↓	Restrictions
No API keys to display			

OAuth 2.0 Client IDs

<input type="checkbox"/>	Name	Creation date ↓	Type	Client ID
<input type="checkbox"/>	MySheets	Aug 11, 2023	Web application	...-d4dr... 

Service Accounts

<input type="checkbox"/>	Email	Name ↑
No service accounts to display		

. 12 Google API

7. [Google API](#) "Google Sheets API",
API (. 13).
API

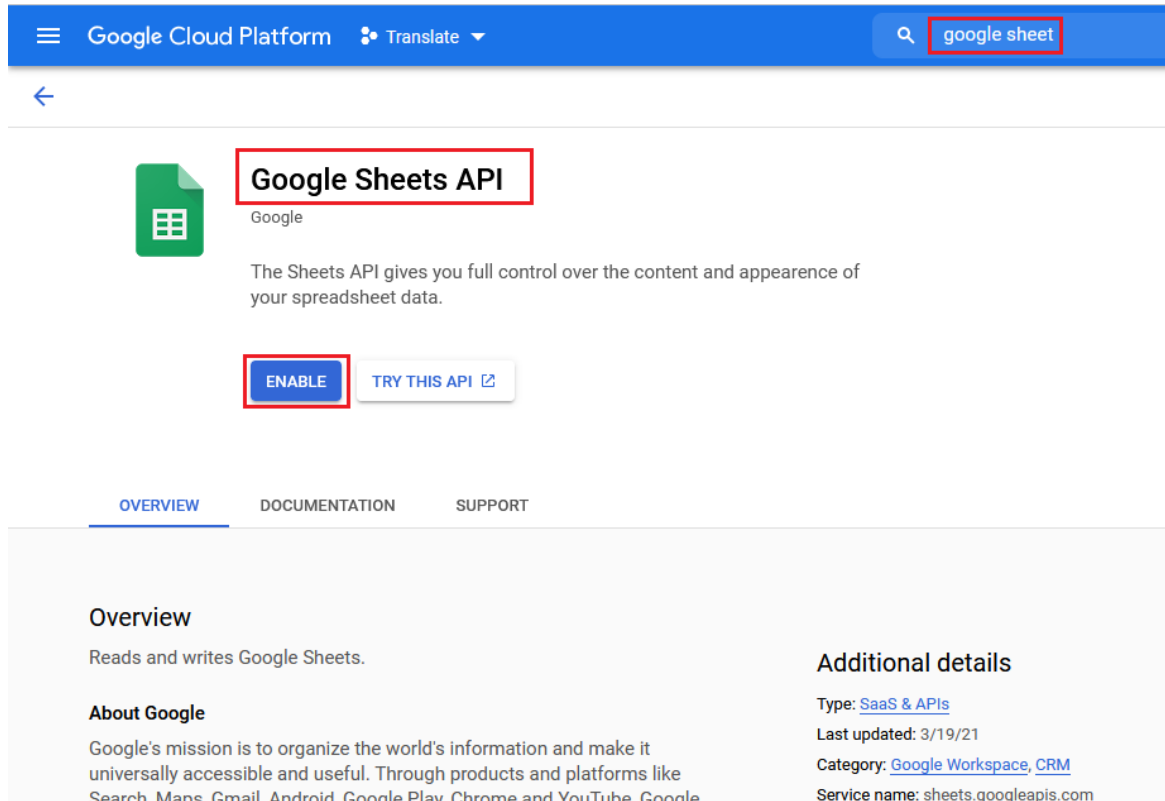


Fig. 13 Activating Google Sheets API

7. Google Drive API. API

8. " " (. 10). -

9. Google.

10. Google Sheets API Google Drive API

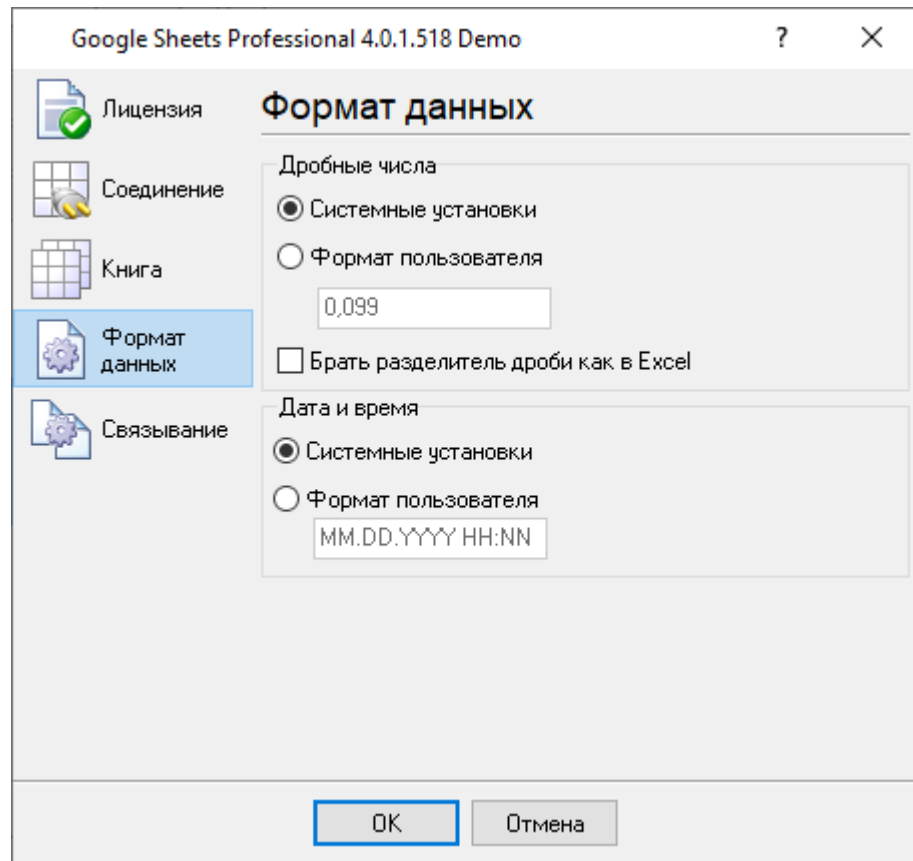
Google. API () Google API.

7

(Float)

(DateTime).

" (. 14)



. 14.

d - , (1 - 31);
 dd - , (01 - 31);
 ddd - (-)
 ;
 dddd - (-)
 ;
 m - , (1 - 12);
 mm - , (01 - 12);
 mmm - (-)
 ;

mmmm - (-) ,
 ;
 yy - (00 - 99);
 yyyy - (0000 - 9999);
 h - , (0 - 23);
 hh - , (00 - 23);
 n - , (0 - 59);
 nn - , (00 - 59);
 s - , (0 - 59);
 ss - , (00-59).

0 - , , 0.

- , ,

. - , ,

" (Windows Control Panel) " (Number Format)
 " (International section).

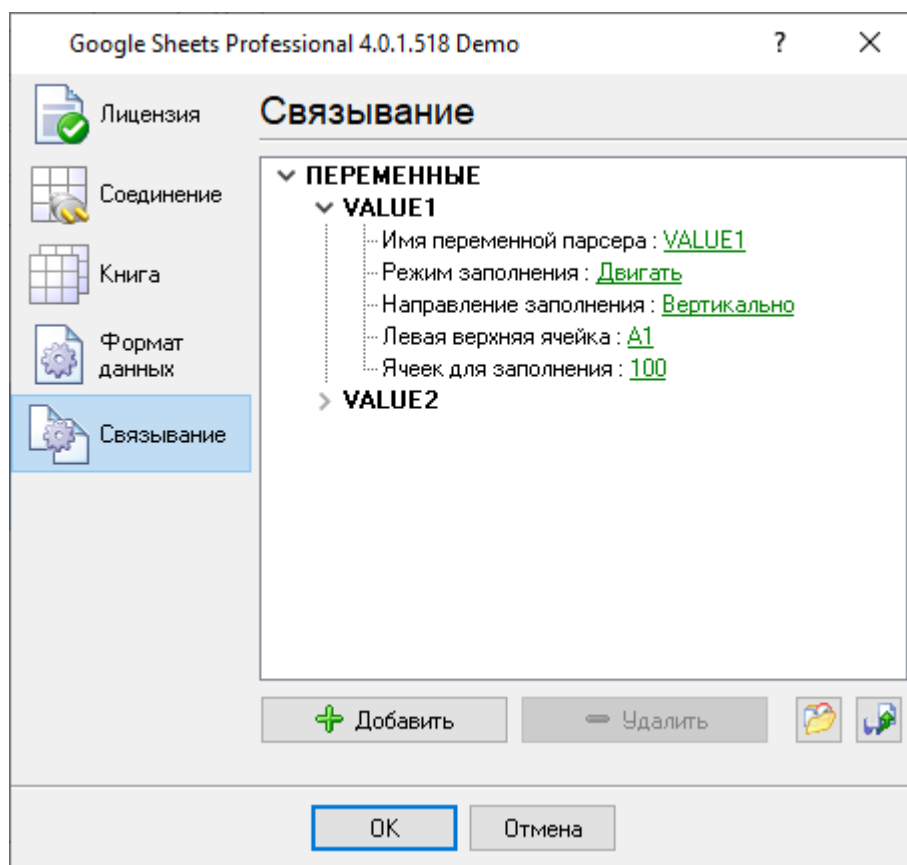
, - , ,
 " (Number Format) " (Windows Control Panel)
 " (International section).

E+ - , , 'E+', 'E-', 'e+', or 'e-'
 , , 'E+' 'e+',
 'E-' 'e-'.

'xx'/'xx' - ,
 - .

8

(. 15).



. 15.

"OK"

(. . 15)

, ' "OK". ' . , " "