

ideone.com

# Ideone API

Documentation

version: 1.1.0



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## History of changes

<b>doc version</b>	<b>author</b>	<b>date</b>	<b>description</b>
1.0.3	Filip Wielewski	19.07.2010	3.1 Common parameters: marked test account as deprecated and added information about registration page.
1.0.3	Filip Wielewski	19.07.2010	3.3 - Specification: methods <i>createSubmission</i> and <i>getSubmissionDetails</i> : parameters <i>private</i> and <i>public</i> respectively: added notices about the <i>user's</i> visibility.
1.0.3	Filip Wielewski	19.07.2010	4.2 - Error codes: added ACCESS_DENIED error code.
1.0.3	Filip Wielewski	19.07.2010	4.4 - Visibility of a submission: created.
1.1.0	Filip Wielewski	01.09.2010	3.1 - Removed information about test:test account which is now disabled.

## 1. Introduction

This document describes ideone.com webservice. It is explained in here how the methods should be used and how to interpret data returned by them. Terms of use can be found on ideone.com.

## 2. The webservice

### 1. General information

Ideone.com webservice is a standard webservice which can be accessed via SOAP protocol.

Webservice address: <http://ideone.com/api/1/service>

WSDL address: <http://ideone.com/api/1/service.wsdl>

On ideone.com you can also find sample programs written in various programming languages.

### 2. Functionality

Ideone API allows to:

- upload a source code and share it with everyone on the Internet;
- run the code (with input data) on server side in more than 40 programming languages;
- and download results of the execution (output, standard error, compilation information, execution time, memory usage, etc.).

### 3. How to use it

The algorithm of creating a paste and executing it on ideone.com server is very simple:

1. Retrieve a list of available programming languages using the `getLanguages` method.
2. Create a paste using the `createSubmission` method.
3. Use `getSubmissionStatus` to check whether ideone.com has finished executing the program. If the program has finished, proceed to the step no. 4. Otherwise wait 3-5 seconds and repeat step no. 3.
4. Use `getSubmissionDetails` to retrieve detailed information about the execution of the program.
5. Go to the step no. 2 to execute another program or do nothing more.

Of course calling the `getSubmissionStatus` and `getSubmissionsDetails` methods is not obligatory – you can call only `createSubmission` if all you wish to do is to place a source code on ideone.com. Since identifiers of the languages are permanent and they never change, you don't even have to call the `getLanguages` method. Ideone API provides one more method: `testFunction`, which returns the same data every time it is called. It was created for testing purposes only.

### 3. Methods

#### 1. Common parameters

Each function takes at least 2 parameters:

- user – a user name or login,
- pass – user's password.

To use Ideone API register at <http://ideone.com/account/register> and use your own login and API password.

#### 2. Returned values

Each method returns a specified set of [key, value] pairs as an associative array where keys are strings and values are of various types:

Key	Value type	Sample value
error	string	OK / AUTH_ERROR / ...
key2	someType2	someValue
...	...	...

Pair [error, errorCode] is always included in the returned array. If error != OK it means that something went wrong and that some pairs bound to be returned by the method may not appear in the array at all.

#### 3. Specification

<b>Method</b>	createSubmission		
<b>Description</b>	Creates a new paste.		
<b>Parameters</b>	<b>Name</b>	<b>Type</b>	<b>Description</b>
	user	string	User name.
	pass	string	User's password.
	sourceCode	string	Source code of the paste.
	language	integer	Language identifier. These identifiers can be retrieved by using the getLanguages method.
	input	string	Data that will be given to the program on the stdin.
	run	boolean	Determines whether the source code should be executed.
	private	boolean	Determines whether the paste

			should be private. Private pastes do not appear on the <i>recent pastes</i> page on ideone.com. Notice: you can only set submission's visibility to <i>public</i> or <i>private</i> through the API (you cannot set the <i>user's</i> visibility).
Returned values	<b>Key</b>	<b>Value type</b>	<b>Description</b>
	error	string	Error code.
	link	string	Paste identifier. This identifier ought be used to refer to the paste when calling other methods. It can also be used to access the paste on ideone.com; for example: if the link were <i>a1b2c3d4</i> then the paste would be available at <i>http://ideone.com/a1b2c3d4</i>

<b>Method</b>	getSubmissionStatus		
<b>Description</b>	Returns status and result of a submission.		
<b>Parameters</b>	<b>Name</b>	<b>Type</b>	<b>Description</b>
	user	string	User name.
	pass	string	User's password.
	link	string	Language identifier.
<b>Returned values</b>	<b>Key</b>	<b>Value type</b>	<b>Description</b>
	error	string	Error code.
	status	string	Submission's current status (see: 9).
	result	string	Submission's current result (see: 9).

<b>Method</b>	getSubmissionDetails		
<b>Description</b>	Returns information about a submission.		
<b>Parameters</b>	<b>Name</b>	<b>Type</b>	<b>Description</b>
	user	string	User name.
	pass	string	User's password.

	link	string	Language identifier.
	withSource	boolean	Determines whether source code of the submission should be returned.
	withInput	boolean	Determines whether input data of the submission should be returned.
	withOutput	boolean	Determines whether output produced by the program should be returned.
	withStderr	boolean	Determines whether stderr should be returned.
	withCmpinfo	boolean	Determines whether compilation information should be returned.
<b>Returned values</b>	<b>Key</b>	<b>Value type</b>	<b>Description</b>
	error	string	Error code.
	langId	integer	Submission's language identifier.
	langName	string	Submission's language name. For example: <i>C++</i>
	langVersion	string	Submission's language version. For example: <i>gcc-4.3.4</i>
	time	float	Execution time in seconds.
	date	string	Server date and time of submission's creation in the following format: <i>YYYY-MM-DD HH-MM-SS</i> ; for example: <i>2009-05-19 02-34-56</i>
	status	integer	Submission's current status. (see: 9).
	result	integer	Submission's current result. (see: 9).
	memory	integer	Memory used by the program.
	signal	integer	Signal raised by the program when an error had occurred.
	public	boolean	Determines whether the paste is public. Public pastes are listed on the <i>recent pastes</i> page on ideone.com. Notice: if the submission has <i>user's</i> visibility this

			parameter will be <i>false</i> .
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<b>Method</b>	getLanguages		
<b>Description</b>	Returns a list of supported programming languages.		
<b>Parameters</b>	<b>Name</b>	<b>Type</b>	<b>Description</b>
	user	string	User name.
	pass	string	User's password.
<b>Returned values</b>	<b>Key</b>	<b>Value type</b>	<b>Description</b>
	error	string	Error code.
	languages	array	Associative array of [language id, language name and version] pairs where key is an integer and value is a string. Sample pairs: [1, C++ (gcc-4.3.4)] [29, PHP (php 5.2.11)]

<b>Method</b>	testFunction		
<b>Description</b>	For testing purposes. Returns the same data every time it is called (if wrong user name or wrong password is provided, then of course it returns AUTH_ERROR error).		
<b>Parameters</b>	<b>Name</b>	<b>Type</b>	<b>Description</b>
	user	string	User name.
	pass	string	User's password.
<b>Returned values</b>	<b>Key</b>	<b>Value type</b>	<b>Returned value</b>
	error	string	OK / AUTH_ERROR
	moreHelp	string	<i>ideone.com</i>
	pi	float	<i>3.14</i>
	answerToLifeAndEverything	integer	<i>42</i>
	oOok	boolean	<i>true</i>

## 4. Variables, values, codes, constants

### 1. *Status and result*

Variables *status* and *result* returned by the `getSubmissionStatus` and `getSubmissionDetails` methods require further explanation.

*Status* specifies stage of program's execution. It's values should be interpreted in the following way:

Value	Meaning
< 0	waiting for compilation – the paste awaits execution in the queue
0	done – the program has finished
1	compilation – the program is being compiled
3	running – the program is being executed

When you use the `getSubmissionStatus` method and *status* is not equal to 0 then you should wait 3-5 seconds and call the method again.

When the paste's status is 0 you can find out how the program has finished by checking the *result* variable.

Value	Meaning
0	not running – the paste has been created with <i>run</i> parameter set to <i>false</i>
11	compilation error – the program could not be executed due to compilation errors
12	runtime error – the program finished because of the runtime error, for example: division by zero, array index out of bounds, uncaught exception
13	time limit exceeded – the program didn't stop before the time limit
15	success – everything went ok
17	memory limit exceeded – the program tried to use more memory than it is allowed
19	illegal system call – the program tried to call illegal system function
20	internal error – some problem occurred on ideone.com; try to submit the paste again and if that fails too, then please contact us

	at contact@ideone.com
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## 2. Error codes

Value	Meaning
OK	Everything went ok.
AUTH_ERROR	User name or user's password are invalid.
PASTE_NOT_FOUND	Paste with specified link could not be found.
WRONG_LANG_ID	Language with specified id does not exist.
ACCESS_DENIED	Access to the resource id denied for the specified user. For example: the submission has "user's" visibility and can be accessed only by its author.
...	Other error codes will be added in the future.

## 3. Languages

Most recent list of supported programming languages is available at <http://ideone.com/faq>

## 4. Visibility of a submission

Visibility determines how a submission is visible on Ideone.com and who can access it. Possible values are:

- public – the submission is visible on the recent page and everyone has access to it
- private – the submission is not listed on the recent page and everyone has access to it
- user's – the submission is not listed on the recent page and only its author has access to it

Currently only first two values can be set through API.

## 5. Frequently asked questions

Most recent FAQ can be found at <http://ideone.com/faq>.