

ideone.com

Ideone™ API

Specification

version: 1.1.3



contact@ideone.com

Table of Contents

History of changes.....	3
1.Introduction.....	4
2.The webservice.....	4
1.General information.....	4
2.Functionality.....	4
3.How to use it.....	4
3.Methods.....	5
1.Common parameters.....	5
2.Returned values.....	5
3.Specification.....	5
4.Variables, values, codes, constants.....	9
1.Status and result.....	9
2.Error codes.....	10
3.Languages.....	10
4.Visibility of a submission.....	10
5.Frequently asked questions.....	11

History of changes

doc version	author	date	description
1.0.3	Filip Wielewski	19.07.2010	Marked test account as deprecated and added information about registration page.
1.0.3	Filip Wielewski	19.07.2010	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	Error codes: added ACCESS_DENIED error code.
1.0.3	Filip Wielewski	19.07.2010	"Visibility of a code" chapter created.
1.1.0	Filip Wielewski	01.09.2010	Removed information about test:test account which is now disabled.
1.1.1	Filip Wielewski	14.09.2010	Error codes: added CANNOT_SUBMIT_THIS_MONTH_ANYMORE error code.
1.1.2	Filip Wielewski	26.01.2011	"The webservice > Methods > Common parameters": Added notice about Ideone API password.
1.1.3	Filip Wielewski	01.09.2013	Visibility of a submission: names of values changed: <i>private</i> to <i>secret</i> , <i>user's</i> to <i>private</i> .

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.

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>

At <http://ideone.com/samples> you can find sample programs written in various programming languages.

Ideone API is powered by [Sphere Engine™](http://www.sphere-engine.com). Visit www.sphere-engine.com for more information.

2. Functionality

Ideone API allows you to:

- upload a source code and share it with everyone on the Internet;
- run the program with input data on server side in more than 60 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 submission and executing it on ideone.com is very simple:

1. Retrieve a list of available programming languages using the `getLanguages` method.
2. Create a submission using the `createSubmission` method.
3. Use `getSubmissionStatus` to check whether ideone.com has finished executing the program. If the program has finished, proceed to 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 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**. *Please note: API password isn't the same as your account password and must be set separately during registration or at <http://ideone.com/account/>.*

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

Method	createSubmission		
Description	Creates a new submission.		
Parameters	Name	Type	Description
	user	string	User name.
	pass	string	User's password.
	sourceCode	string	Source code of the submission.
	language	integer	Language identifier. Language identifiers can be retrieved by using the getLanguages method.
	input	string	Data that will be given to the program on stdin.

	run	boolean	Determines whether the source code should be executed.
	private	boolean	Determines whether the submission should be <i>public</i> or <i>secret</i> . <i>Secret</i> submissions do not appear on the <i>recent codes</i> page on ideone.com. Please note: you can only set submission's visibility to <i>public</i> or <i>secret</i> through API (you cannot set the <i>private</i> visibility).
Returned values	Key	Value type	Description
	error	string	Error code.
	link	string	Identifier of the submission. This identifier should be used to refer to the submission when calling other methods. It can also be used to access the submission on ideone.com; for example: if the link is <i>abcdef</i> then the submission will be available at http://ideone.com/abcdef

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

Method	getSubmissionDetails		
Description	Returns information about a submission.		
Parameters	Name	Type	Description

	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.
Returned values	Key	Value type	Description
	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 submission is <i>public</i> . <i>Public</i> submissions are listed on the <i>recent codes</i> page on ideone.com. Please note: if the submission has <i>secret</i>

			visibility this parameter will be <i>false</i> .
	source	string	Source code of the submission. This value is returned if the <i>withSource</i> parameter is set to true.
	input	string	Input data of the submission. This value is returned if the <i>withInput</i> parameter is set to true.
	output	string	Output produced by the program. This value is returned if the <i>withOutput</i> parameter is set to true.
	stderr	string	Stderr produced by the program. This value is returned if the <i>withStderr</i> parameter is set to true.
	cmpinfo	string	Compilation information regarding the program. This value is returned if the <i>withCmpinfo</i> parameter is set to true.

Method	getLanguages		
Description	Returns a list of supported programming languages.		
Parameters	Name	Type	Description
	user	string	User name.
	pass	string	User's password.
Returned values	Key	Value type	Description
	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)]

Method	testFunction		
Description	For testing purposes. Returns the same data every time it is called (if wrong user name or wrong password is provided, then AUTH_ERROR error code is returned).		
Parameters	Name	Type	Description

	user	string	User name.
	pass	string	User's password.
Returned values	Key	Value type	Returned value
	error	string	OK / AUTH_ERROR
	moreHelp	string	<i>ideone.com</i>
	pi	float	3.14
	answerToLifeAndEverything	integer	42
	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 submission 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 submission's status is 0 you can find out how the program has finished by checking the *result* variable.

Value	Meaning
0	not running – the submission 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 error
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 to
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 program again and if that fails too, then please contact us at contact@ideone.com

2. Error codes

Value	Meaning
OK	Everything went ok.
AUTH_ERROR	User name or user's password are invalid.
PASTE_NOT_FOUND	Submission with a specified link could not be found.
WRONG_LANG_ID	Language with a specified id does not exist.
ACCESS_DENIED	Access to the resource is denied for the specified user. For example: the submission has <i>private</i> visibility and can be accessed only by its author.
CANNOT_SUBMIT_THIS_MONTH_ANYMORE	You have reached a monthly limit (see http://ideone.com/offer/users for details)
...	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#supported-languages>

4. Visibility of a submission

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

- *public* – everyone has access to the code and it is listed at the *recent codes* page
- *secret* – everyone has access to the code and it is not listed at the *recent codes* page;
- *private* – only author of the code has access to it and it is not listed at the *recent codes* page. To use this level of visibility you need to be logged in.

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>.