

# How to set up one-time password (TOTP)

## (From off-campus • WinAuth)

TUT Information media center

Our university has introduced two-factor authentication (TOTP authentication) using one-time passwords which based on time to ensure identity and prevent unauthorized using of important systems. This authentication requires one-time passwords in addition to the username and password which user remembered to achieve strong authentication. A one-time password can be generated only on the smartphone which user owns.

Therefore, it is necessary to install an application for using TOTP authentication on your smartphone in advance and register it with University's user authentication system. This section describes the procedure for registering the one-time password application for Windows PC 'Win Auth' in the authentication infrastructure system.

This document describes the procedure for setting from off-campus network. Please see <https://imc.tut.ac.jp/totp> for the procedure of setting from on-campus network.

The authentication method is switched depending on the type of access source network (on-campus or off-campus). For example, on-campus networks can be authenticated only with a username and password, but off-campus networks require TOTP authentication in addition to that. In this classification, the following networks are classified as "off-campus".

- Connection from off campus by VPN
- Wired guest network (e.g., The Village Tempaku network)
- Wireless network SSID: eduroam
- Wireless network SSID SSID: tutguest

### What to prepare

- Account Information Notification (This procedure requires your own username and password)
- Matrix code (From the document "Notification of Your Matrix Code")
- Environment which you can receive the password recovery email address

Please refer to <https://imc.tut.ac.jp/passwordreset> if you have not acquired the authentication matrix code or have not registered the password recovery email address.

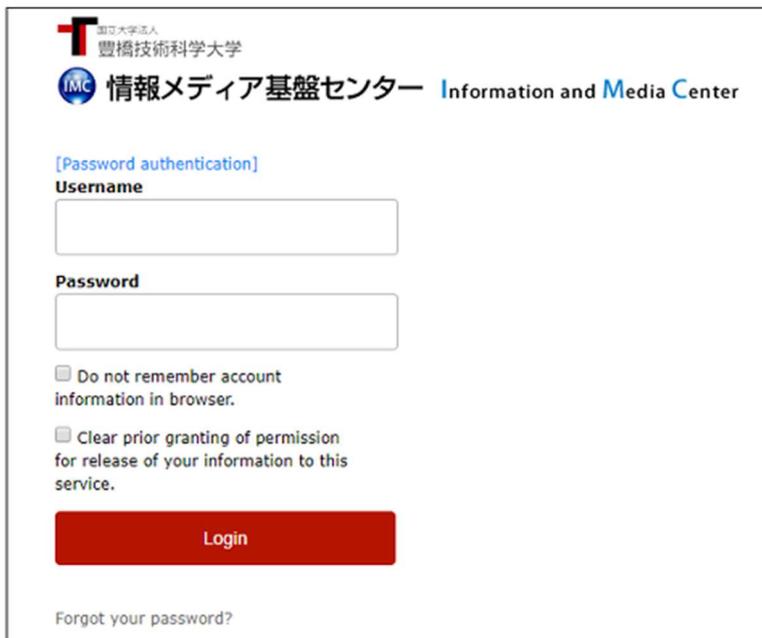
## Procedure of registering the one-time password App

1. Connect your PC and smartphone for the setting to the network.
2. Check the date and time on your PC and smartphone are correct.
3. Install 'WinAuth' on your Windows PC. Access the homepage below and download the latest version of "Download Latest Stable Version". Unzip the downloaded ZIP file and copy it to an apposite folder (e.g. the folder where the free software is located, the desktop).

### ●WinAuth

<https://github.com/winauth/winauth>

4. Display the "User Profile Maintenance" page in the browser of the PC.  
To display the "User Profile Maintenance" page, click "Change password" in the quick menu on the homepage of the Information Media Center (<https://imc.tut.ac.jp/>).
5. On the "Password Authentication" screen, entry username and password listed on "Account Information Notification".



The screenshot shows the login page for the Information and Media Center. At the top left is the logo of the University of Tsukuba (豊橋技術科学大学). Below it is the logo for the Information and Media Center (情報メディア基盤センター). The page title is "[Password authentication]". There are two input fields: "Username" and "Password". Below the password field are two checkboxes: "Do not remember account information in browser." and "Clear prior granting of permission for release of your information to this service." A red "Login" button is at the bottom. A link "Forgot your password?" is at the bottom left.

6. Click “Register the one-time password generator” on the User Profile Maintenance page.

The screenshot shows the 'User Profile Maintenance' page. The left sidebar contains several menu items: 'パスワード変更 Change Password', 'プロフィールメンテナンス Profile Maintenance', '印刷枚数の確認 Show print accounting information', '教育用システム ディスク利用状況 Disk usage on Educational System', 'ワンタイムパスワードアプリを登録する Register the one time password generator' (highlighted with a red box), and '認証用マトリクスコードの表示 Show your authentication matrix code'. The main content area is titled 'パスワード変更 Change Password' and includes fields for '氏名 - Name', '現在のパスワード - Old Password', '新しいパスワード - New Password', and '新しいパスワード (確認) - Confirm New Password'. Below these fields, there are instructions and a list of password requirements: 'パスワードは即座に反映されます。', 'パスワードは次の基準を満たして下さい。', '12文字以上であること。', '英数字もしくは以下の記号からなること (全角文字・空白は使用不可)。', '利用可能記号: !"#%&'()\*~|^`@{[+;\*.} ]<, > . ? / - \_', '大文字小文字数字記号のうち3種類を含めること。', '新しいパスワードは旧パスワードと異なること。', '他人に推測されやすいパスワードではないこと。', '(ユーザIDや英字氏名と同じ文字列は設定不可)'. A '保存' (Save) button is located at the bottom of the form.

7. “Matrix authentication” screen will be displayed. Entry the value which corresponding to the coordinates on PC browser by referring to the authentication matrix code.

The screenshot shows the 'Matrix authentication' screen. It features the logo of Toyohashi University of Technology and the Information and Media Center. The text reads: '[Matrix authentication] Enter your response.' Below this, a grid of characters is displayed: 'F5 F3 D4 F1 C5 D1 E3 E5'. A text input field is provided for the user to enter their response. A red 'Login' button is located at the bottom of the screen.

For example, if the value in row F and column 5 of "Notification of Your Matrix Code" is "12"

and the value in row F and column 3 is 55, enter 12585... and so on. Repeat this for the number of coordinates shown.

	1	2	3	4	5	6
A	15	81	40	73	13	83
B	48	43	06	27	44	56
C	10	24	25	85	45	99
D	05	42	04	62	02	91
E	94	58	64	97	88	09
F	90	37	55	11	12	20

### 8. Select 'Agree'

続行すると上記の情報はこのサービスに送信されます。このサービスにアクセスするたびに、あなたに関する情報を送信することに同意しますか？

同意方法の選択:

- 次回ログイン時に再度チェックします。
  - 今回だけ情報を送信することに同意します。
- このサービスに送信する情報が変わった場合は、再度チェックします。
  - 今回と同じ情報であれば今後も自動的にこのサービスに送信することに同意します。
- 今後はチェックしません。
  - すべての私に関する情報を今後アクセスするすべてのサービスに送信することに同意します。

この設定はログインページのチェックボックスでいつでも取り消すことができます。

9. The QR code and key will be displayed in the browser. Then, in step 13, enter the 「キー」 (Key) in the WinAuth entry field.

豊橋技術科学大学  
情報メディア基盤センター Information and Media Center

表示されているQRコードを認証アプリで読み取ります。  
認証アプリで生成されたコードを入力して、登録ボタンを押して登録を完了してください。



キー:

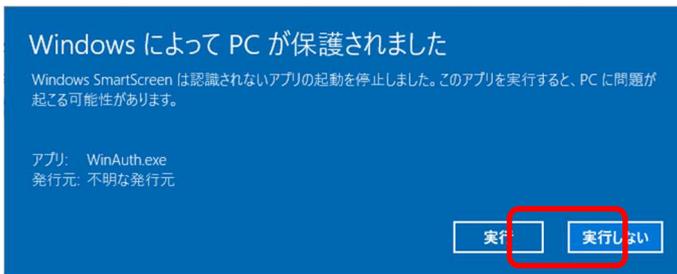
※ There is some possibility of being displayed "Registered" sign, even if you have not registered the one-time password application. In that case, click the "Reissue" button.



10. Start "WinAuth". The following will be displayed. Click 「詳細情報」 (Details).



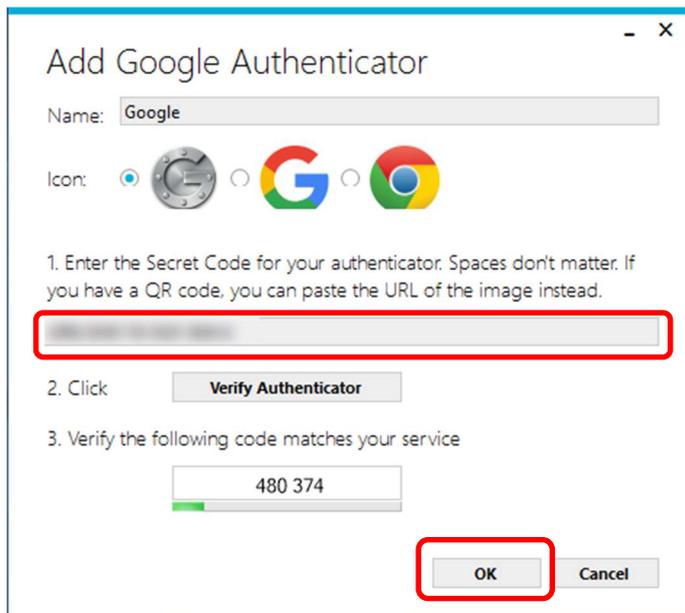
11. Click 「詳細情報」 (Details) and the following will be displayed. Click 「実行」 (Execute) button.



12. Click 「Add」、select 「Google」



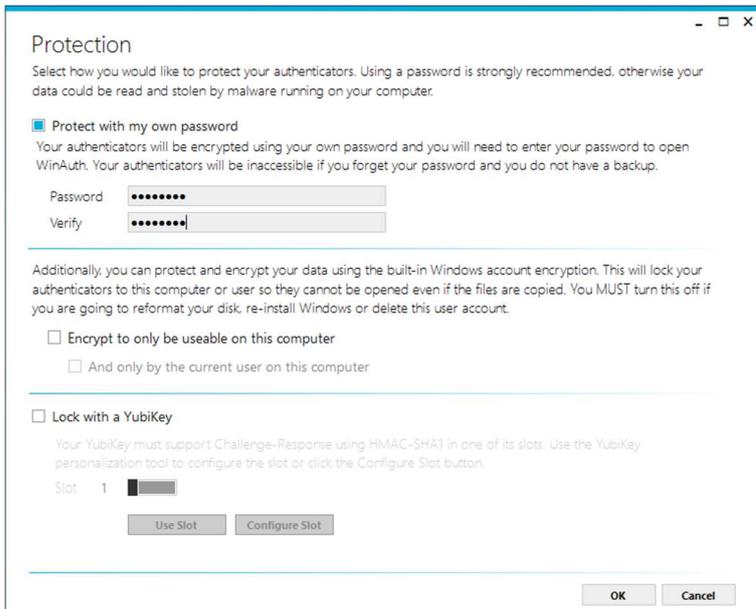
13. The following will be displayed. Enter 「キー」 (Key) in step 6 for 1st entry field and click "OK" button.



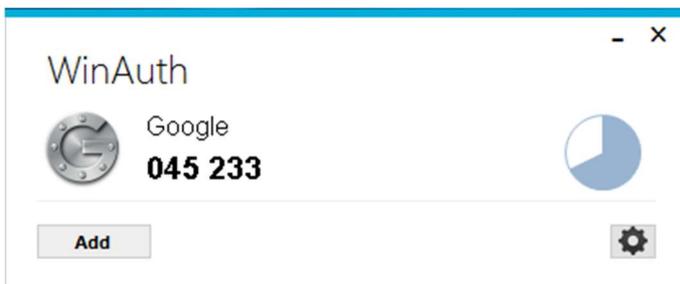
14. Click "OK" button, then display the following. Set the password for starting "WinAuth" and click the "OK" button.

※ Although this procedure is not indispensable, it is included in the procedure because of information security considerations. If you do not want to enter a password every time WinAuth starts, uncheck "protect with my own password". If you uncheck it, you will not have to enter in the password field.



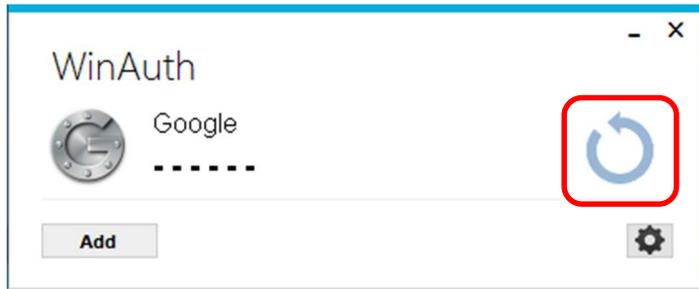


15. If the setting is successful, a 6-digit number will be displayed. Enter the number in the entry field of the browser and click the "Register" button.



16. If the 6-digit number is not displayed as shown below, click the arrow button.





17. Registration is completed when PC browser displayed "Process completed successfully".  
Click the "OK" button.

18. After the registration, access the multi-factor authentication test page (<https://example.imc.tut.ac.jp/mfa-test/>) with PC browser and check the registered one-time password application works properly. If authentication is successful, the screen shown on the right is displayed.

