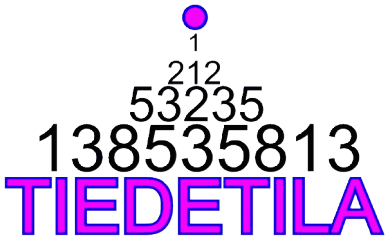


Tiedetila

Manual for Digital Nature Trail Planning

1. Necessary elements 2

1. 1. Nature trail 2

2. Searching for suitable applications 2
- **2.1. Map programs and maps** 2
- **2.2. Terrain marks for the nature trail** 3
- **2.3. The digital signs of the nature trail** 4
  - **2.3.1 QR code creation - QR code generator** 4
  - **2.3.2. Reading QR code** 4
  - **2.3.3. The content of the QR code** 5

3. Making a website with Google tools 6
- **3.1. Making a web page** 6
- **3.2. Other applications** 6

Purola nature trail 7

1. Necessary elements

1. Nature trail, mark terrain and digital signs
2. Searching for suitable applications
3. Websites, where information about the nature trail can be saved
4. Testing the nature trail

1.1. Nature trail

As an example in this article is the Purola nature trail, which passes by Älyasema, along the side of the Kalliopuro reservation area, continuing through the cultivated forest to the Koivuranta juniper. At the beginning of the trail, there are normal signs indicating the beginning of the trail, and along the trail there are markings about the direction of the trail. Places that are worth attention are marked with signs with a QR code.

2. Searching for suitable applications
2.1. Map programs and maps

- In Finland, the National Land Survey of Finland maintains atlases that are freely viewable terrain maps. Planning a nature route on the basis of these maps succeeds well.

Google Maps provides a good general map. In addition, image material is available if Google's filming vehicle has passed through the region. However, Google's map is so rough that you need a decent terrain map alongside the Google map when planning a nature trail.

Purola nature trail - marked on the map with red and green lines.

Contains data from Terrain Database 04/2014 of the National Land Survey of Finland. http://pikakartta.fi/

2.2. Terrain marks for the nature trail

In addition to the map, the nature trail has to be marked on the terrain. At the beginning of the trail, there has to be a sign that clearly guides to the trail, and the marks along the trail must be clearly visible.

Pihlajavesi uses stylized rowan berry bunches in signposts for terrain marks.

The beginning of the trail

Path sign along the trail

Information board along the path

2.3. The digital signs of the nature trail

Digital signs and information requires a QR code creation application, a QR reading application and a website - for example, Google's application. If necessary, place marks can also be placed on the Google map.

← Purola nature trail starts

QR code creation and reading apps are available for all phone operating systems. In addition, there are online QR code generator programs.

The QR code can be used in several ways, either as a link to a website or as a provider of additional information - up to 300 characters can be saved to it.

2.3.1 QR code creation - QR code generator

The use of the QR code creation is similar in all applications.

- Start the QR application.
- Select the desired QR code type (web address, email, text, ...).
- Add the information you want to be included in the QR code.
- Select any additional functions such as color, captions, error correction, etc.

In Anroid phones there are a whole range of QR code generator programs, for example:
QR Code Generator

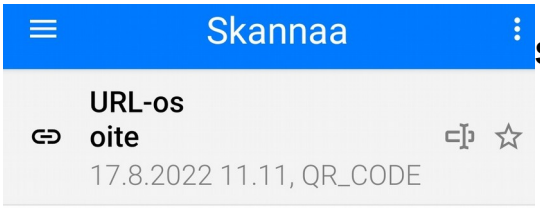
2.3.2. Reading QR code

In some systems, QR code reading is a standard application - in others, you have to get it from the app store. Reading the QR code is based on the application's interpretation of the photo taken from the code.

Android phones have several QR code reading apps. For example:

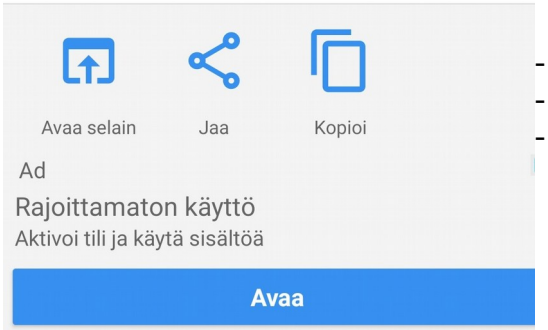
QR & Barcode Scanner

This app can read barcodes in addition to QR codes.



Scanning of QR code

← Code interpreted
- in this case, the web address was saved in the code



← Question – what to do next
- is opened in the browser
- share - send to a friend, for example
- copied for further use

← Image obtained from the QR code with the application

2.3.3. The content of the QR code

The QR code needs a file of images or text. This is the additional information that the QR code is supposed to provide.

From the user's point of view, the process usually goes as follows:
The QR code is read → the result is the website address, which is redirected automatically or by the user to the website containing the information. The information on the page is now readable.

The creator of the nature trail must make the necessary images and files for the website. The easiest applications to implement are Google Drive and Google Sites or a blog post.

→ https://mypihlajavesi.grd.by/46n0r1

→ A text that describes the path. →

3. Making a website with Google tools

An existing Google username and password is required. Google e-mail usernames also work for creating websites. Otherwise you have to create user account.

3.1. Making a web page

1. Open the Google website creation page: sites.google.com

2. Start a page: click the (+) button in the lower right corner of the page

3. Name the page. The name of the page is written in the upper left corner of the window. This is the name by which the page is known in the internet. For example, the page 'Pihlajaveden toimijoita' (Operators of Pihlajavesi) can be seen at:
https://sites.google.com/view/pihlajavedentoimijoita

4. Text and images of the internet pages
Text frames
- select from the menu on the right
- fill the frames either by writing or copy-paste -method.
Image frames
- select from the menu on the right
- the titles in the image selection are a bit misleading because
Select means that images already exist in the internet, Google Drive, etc. and
Send refers to images in your computer.
Embedding means adding data from a finished website, etc., to your own website that is in progress.

5. Publishing. When the page is ready - click the publish button at the top of the window.
Select who can view the page - choose public, because the purpose is to show the page to everyone.
The address of the page: is generated during publication and has to be saved for later use, for example with the copy-paste -method (CTRL and C - CTRL and V). With the help of the address, the page can be displayed from another website, or it can be used as a QR code link.

6. QR code
The QR code is processed on the website as an image (usually JPG or PNG). The QR code is used to link the website to things or places. It can be read with a smartphone to access the website.

3.2. Other applications

Other applications that could be usable while walking on the trail are the compass application and the positioning application.

Purola nature trail

PUROLA - ÄLYASEMA

Why not culture and creativity for seniors

Co-funded by
the European Union