

Production Supporting Systems in Factories

ระบบสนับสนุนการผลิตในโรงงานอุตสาหกรรม

Setting up Node-Red

Software

- Install [Node.js](#) (Version 22)
- Install [Visual Studio Code](#)

VSCode

- Change default terminal in `VSCode` (Windows only)
 - Open a window
 - Select `terminal` -> `New Terminal`
 - press `ctrl` + `p`
 - Type `> Terminal: Select Default Profile` and click
 - Select `cmd`

Package manager

- `Node.js` comes with `npm` package manager.
 - But it is quite slow.
- Let's use a more performant package manager call `pnpm`.
 - `npm install -g pnpm`

Install Node-Red (1)

- Create a new folder
- Drag a folder into VSCode
- Create a directory called local

Install Node-Red (2)

- Select `terminal` -> `New Terminal`
- *(Terminal)* `pnpm init`
- *(Terminal)* `pnpm install node-red`

Install Node-Red (3)

- Click at the file `package.json` to edit
- Add this line `"start": "npx node-red -u ./local -p 1880"`

```
{
  // ...
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1",
    // Add a new line here
    // Don't forget to add the extra "," above.
    "start": "npx node-red -u ./local -p 1880"
  }
  // ...
}
```


Start `Node-Red`

- *(Terminal)* `pnpm start`
- Visit the web browser at
 - `http://127.0.0.1:1880` or
 - `http://localhost:1880`

Navigating around Node-Red

Create flows to

- Show timestamp in the `debug` panel.
- Show date and time using `function` node. *(See code on the other page.)*
- Send continuous random numbers. (Use `Math.random()`)
- Use `switch` and `change` .

```
const date = new Date();  
msg.payload = date.toDateString();  
return msg;
```