Production Supporting Systems in Factories

ระบบสนับสนุนการผลิตในโรงงานอุตสาหกรรม

Setting up `Node-Red`

Software

- Install Node.js
- 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`

- Install `Node-Red`
  - Create a new folder
  - Drag a folder into `VSCode`
  - Select `terminal` -> `New Terminal`
  - (Terminal) `npm init -y`
  - (Terminal) `npm install node-red`
  - Create a directory called `local`

- Configure `Node-Red`
  - 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) `npm 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;
```