



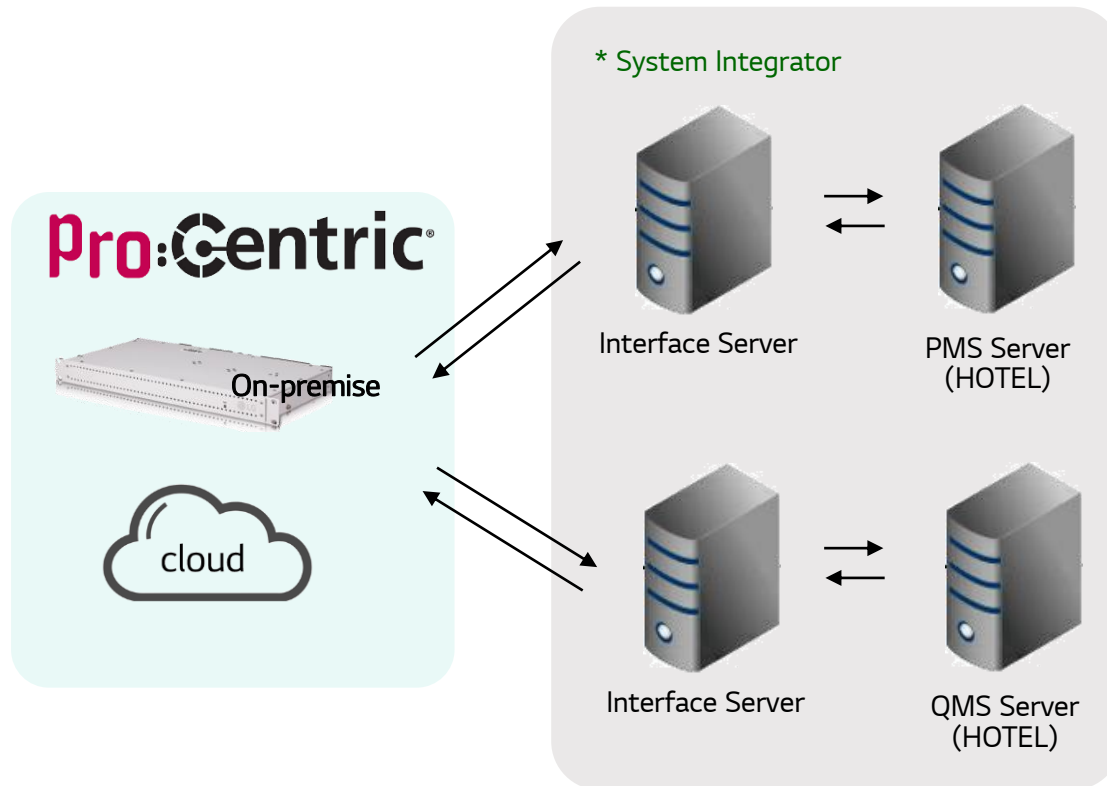
GUEST SERVICE (PMS / QMS SIMULATOR ON WIN PC)

This document includes how to install PMS/QMS Simulator on window PC for DEMO purpose

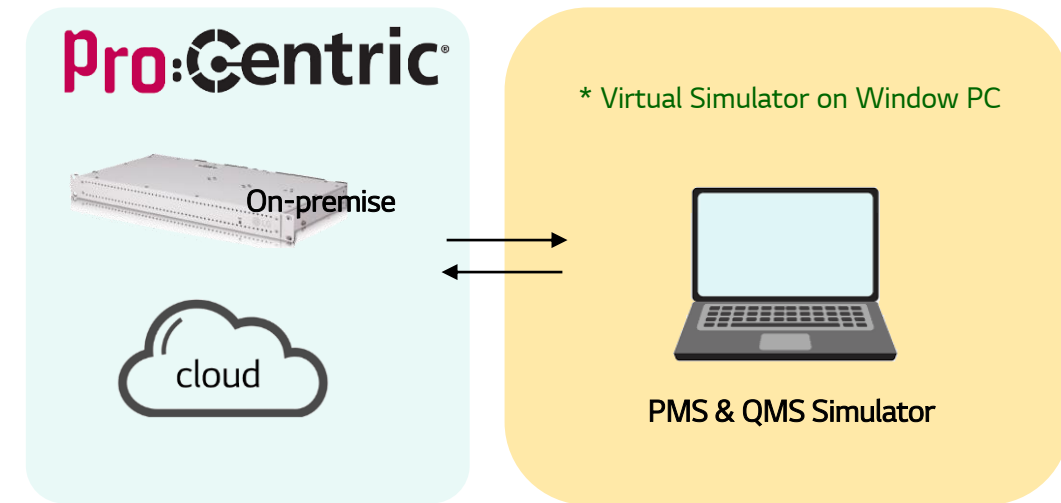
CONCEPT

| Concept

Hotel Infra.



Showroom Infra.



PROCESS



Installation : Simulator on winPC

Pre-requisites / PMS simulator / QMS simulator



Connection : Simulator ↔ Pro:Centric

Set External Server (PMS/QMS) on Admin Client (Pro:Centric)



Setting : Guest Service

Template



Demonstration

STEP 1



Installation : Simulator on winPC

Pre-requisites / PMS simulator / QMS simulator



Connection : Simulator ↔ Pro:Centric

Set External Server (PMS/QMS) on Admin Client (Pro:Centric)



Setting : Guest Service

Template



Demonstration

Pre-requisites

| Install NVM (Node Version Manager)

1. <https://github.com/coreybutler/nvm-windows/releases>
2. download [nvm-setup.zip]

Releases · coreybutler/nvm-win · x +

github.com/coreybutler/nvm-windows/releases

Releases Tags

Latest release

1.1.7
256d694

Compare

1.1.7 - Maintenance Release

coreybutler released this on Aug 2, 2018 · 64 commits to master since this release

Merged several outstanding PR's:

- Silent Setup (#264)
- Comparison Fix (#269)
- Fix for Manually removing folder on nvm uninstall (#356)
- Wilcard major version to latest (#222)

Several documentation PR's were included in the repo as well.

The build process has been updated to provide:

- Code Signed Executables (courtesy Ecor Ventures/Author.io)
- MD5 Checksums

Assets 6

nvm-noinstall.zip	2.3 MB
nvm-noinstall.zip.checksum.txt	34 Bytes
nvm-setup.zip	1.98 MB
nvm-setup.zip.checksum.txt	34 Bytes
Source code (zip)	
Source code (tar.gz)	

Click here to download →

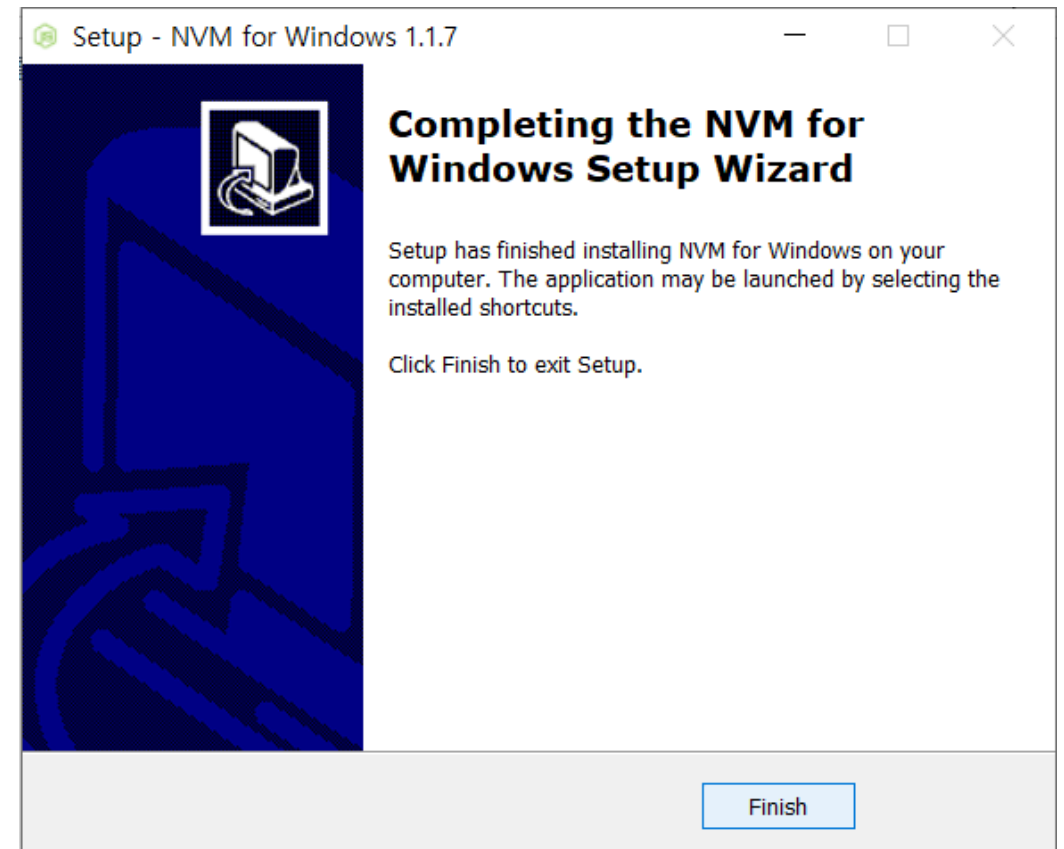
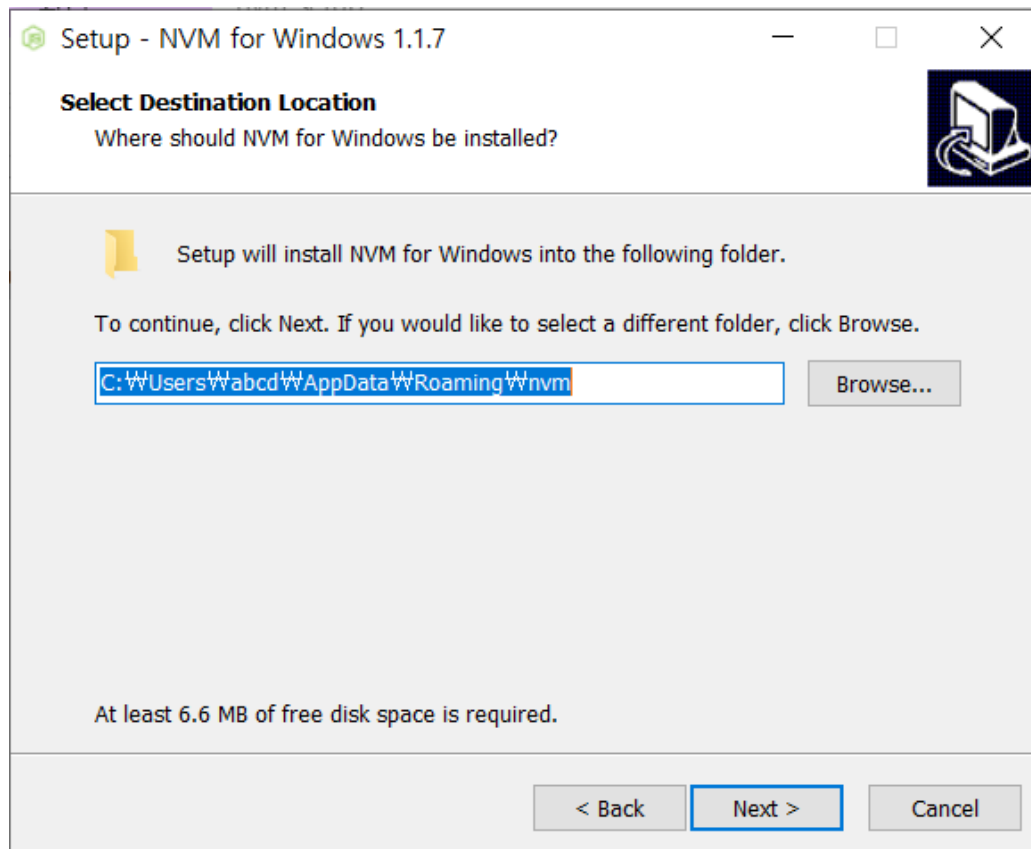
검색하려면 여기에 입력하십시오.

오전 9:51
2021-03-24

Pre-requisites

| Install NVM (Node Version Manager)


3. Extract [nvm-setup.zip] and run [nvm-setup.exe]

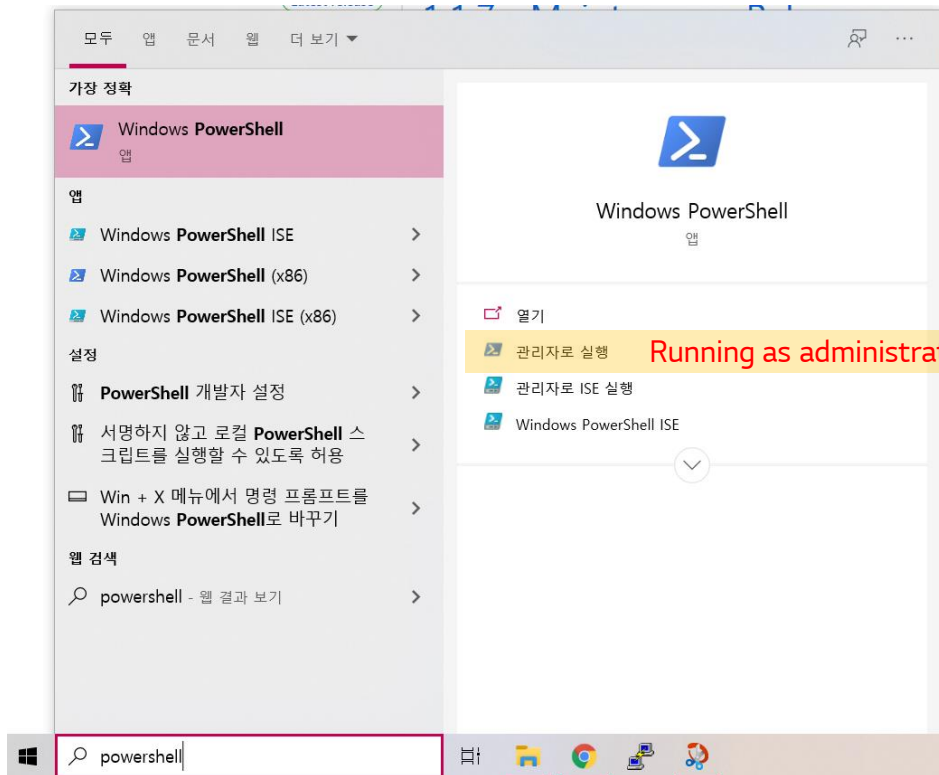


Pre-requisites

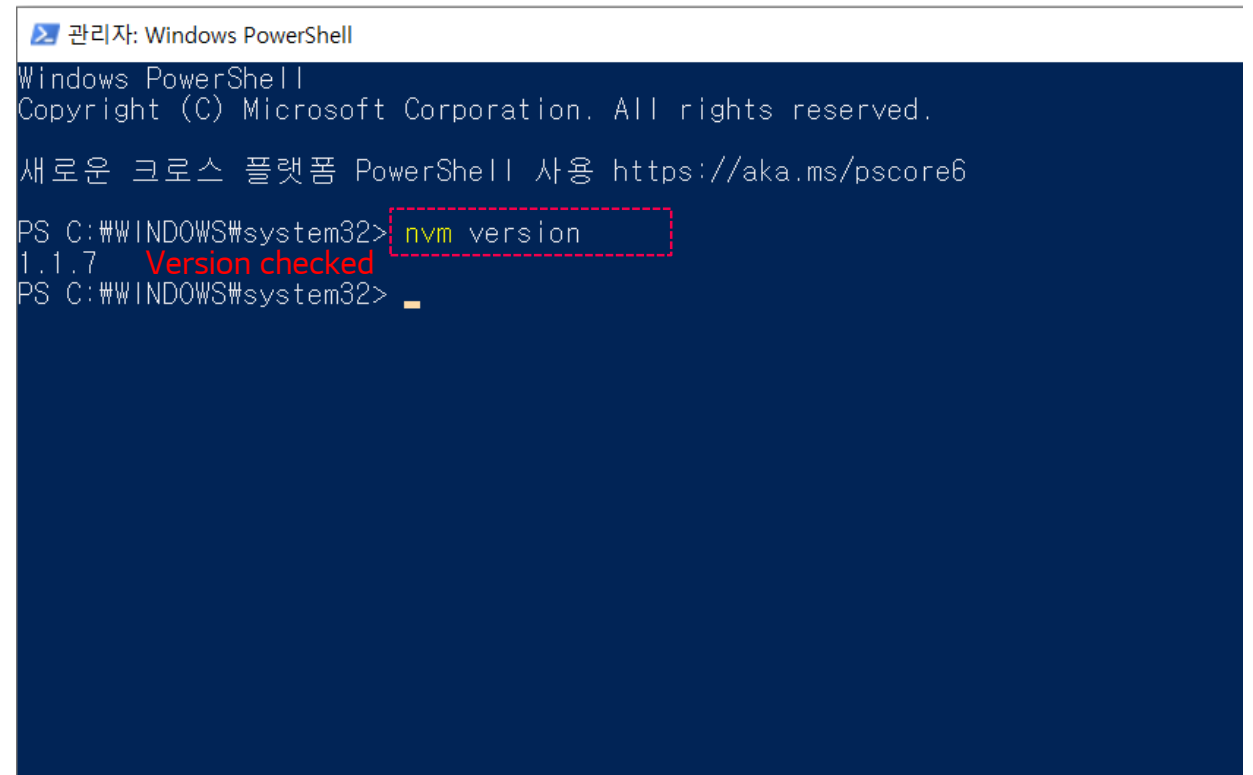
| Install NVM (Node Version Manager)

4. In order to check if nvm is installed correctly, open **powershell** and check nvm version.

1)  + powershell



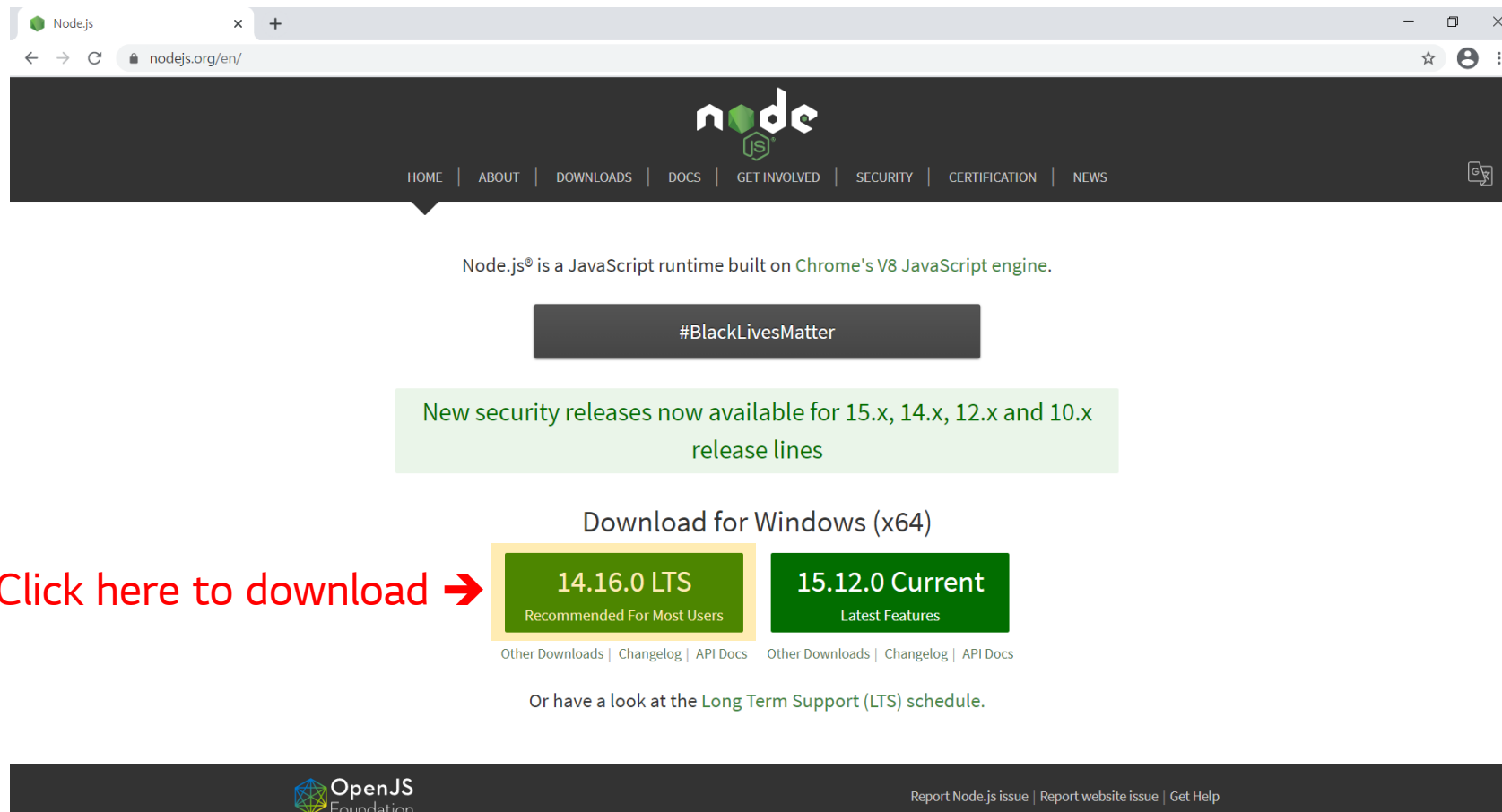
2) Command: nvm version



Pre-requisites

| Install Node.js

1. <https://nodejs.org>
2. Download stable Node.js version



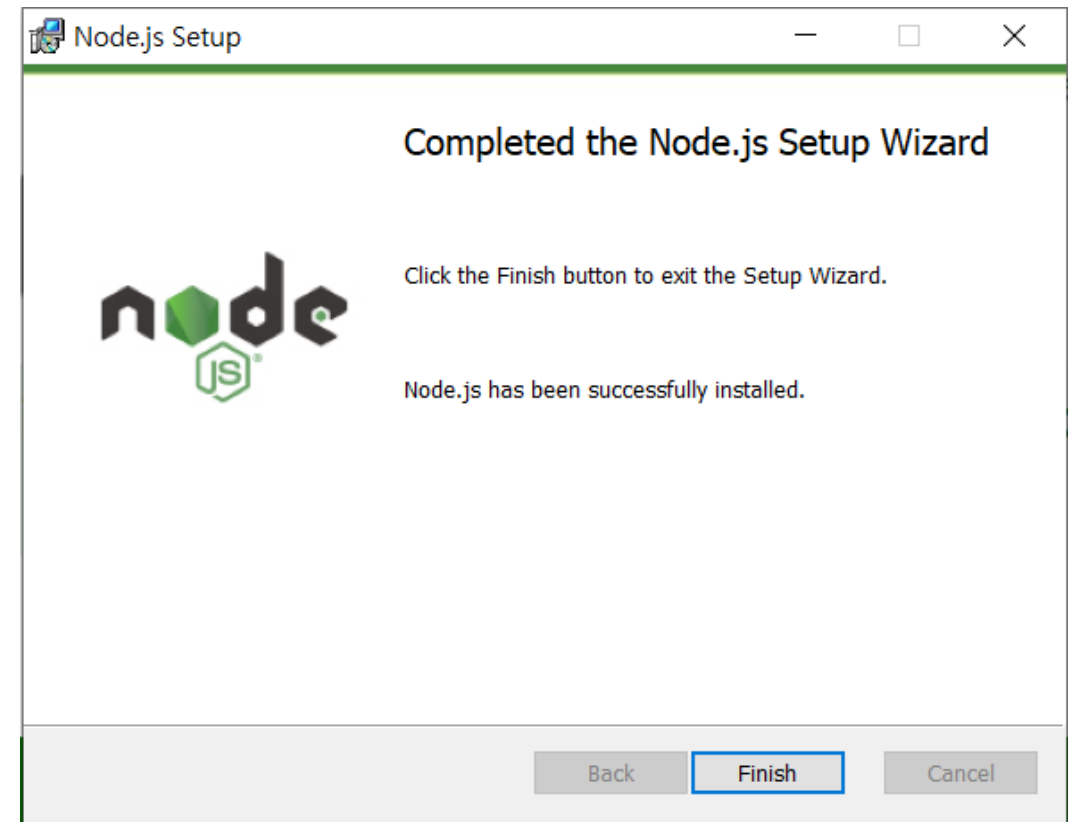
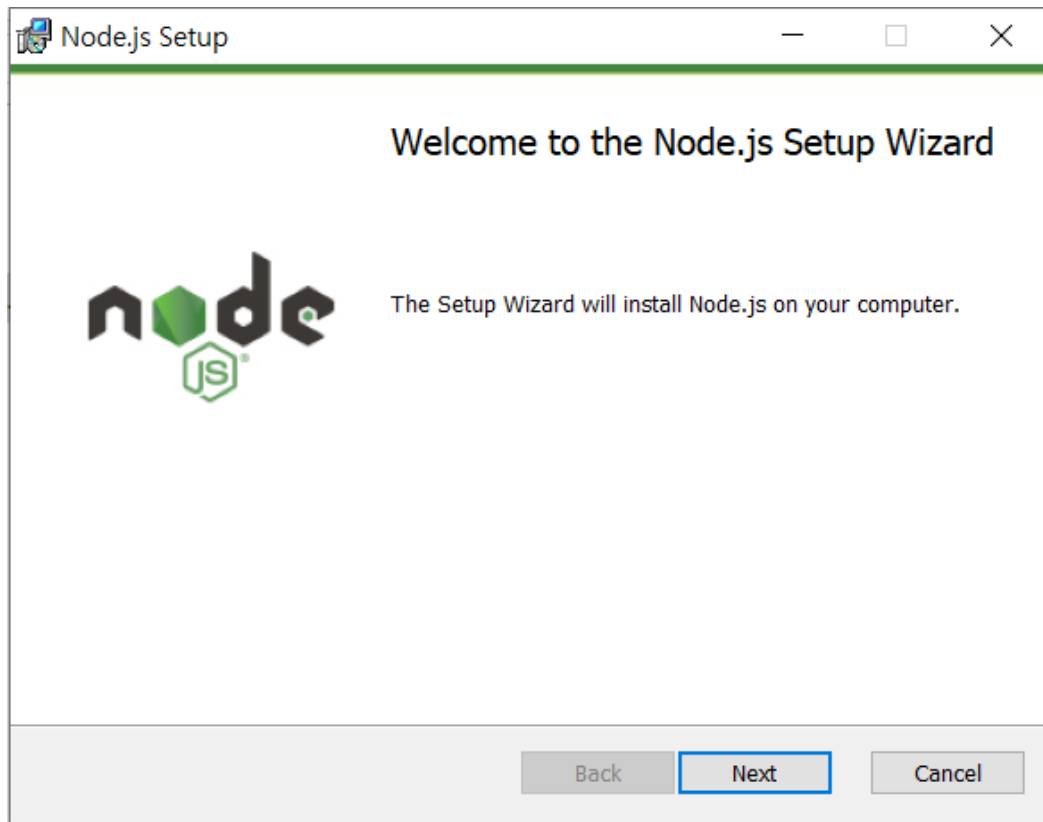
The screenshot shows the Node.js website with the following content:

- Navigation bar: HOME | ABOUT | DOWNLOADS | DOCS | GET INVOLVED | SECURITY | CERTIFICATION | NEWS
- Text: Node.js® is a JavaScript runtime built on Chrome's V8 JavaScript engine.
- Section: #BlackLivesMatter
- Text: New security releases now available for 15.x, 14.x, 12.x and 10.x release lines
- Section: Download for Windows (x64)
- Buttons:
 - 14.16.0 LTS (Recommended For Most Users) - Highlighted with a red arrow and a yellow border.
 - 15.12.0 Current (Latest Features)
- Text: Other Downloads | Changelog | API Docs (repeated for both versions)
- Text: Or have a look at the Long Term Support (LTS) schedule.
- Footer: OpenJS Foundation | Report Node.js issue | Report website issue | Get Help

Pre-requisites

| Install Node.js

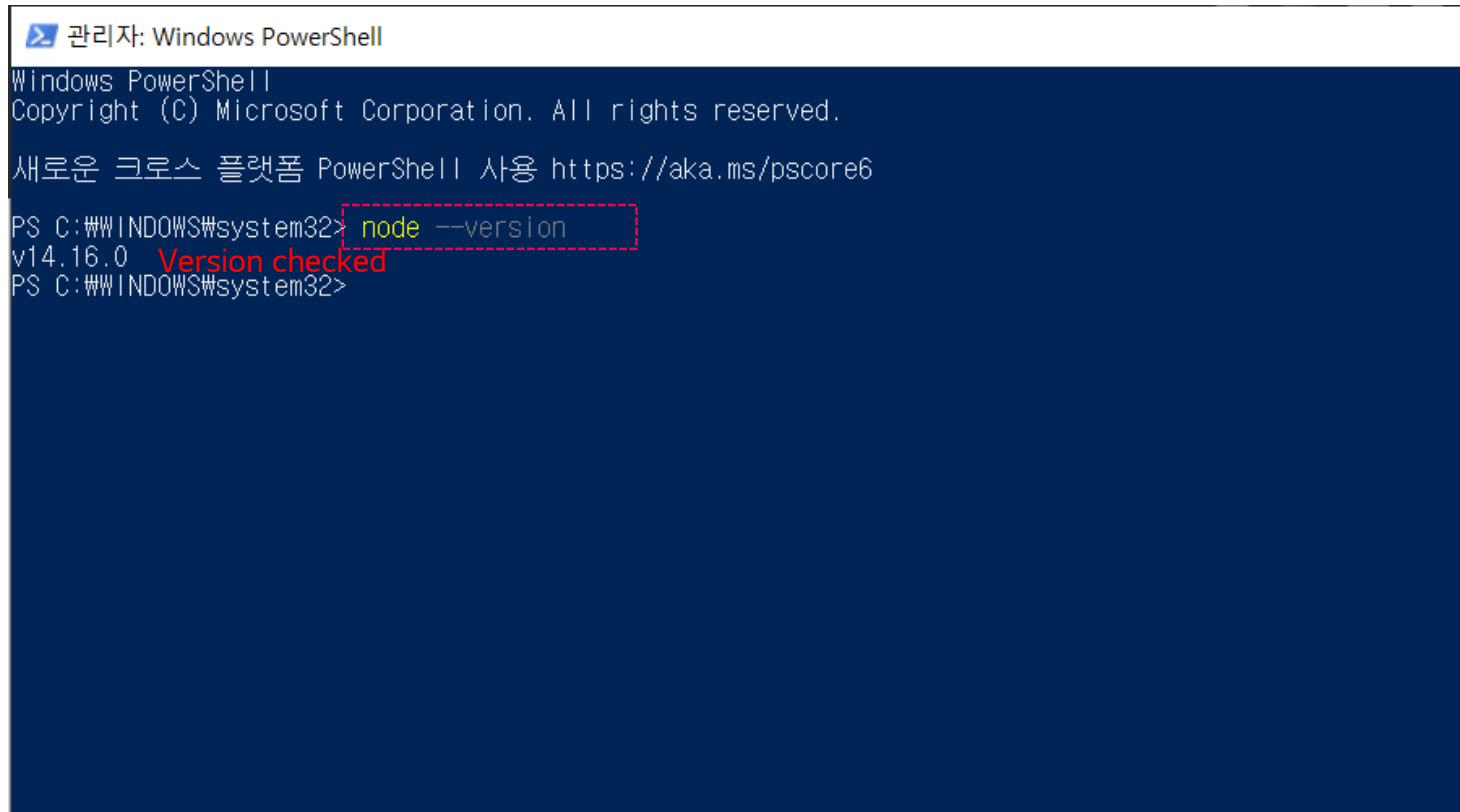
3. Run [node-v14.16.0-x64.msi] to install Node.js



Pre-requisites

| Install Node.js

4. Close and open powershell.
5. Check if Node.js is installed correctly by typing command.
 - Command : `node --version`



```
관리자: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

새로운 크로스 플랫폼 PowerShell 사용 https://aka.ms/pscore6

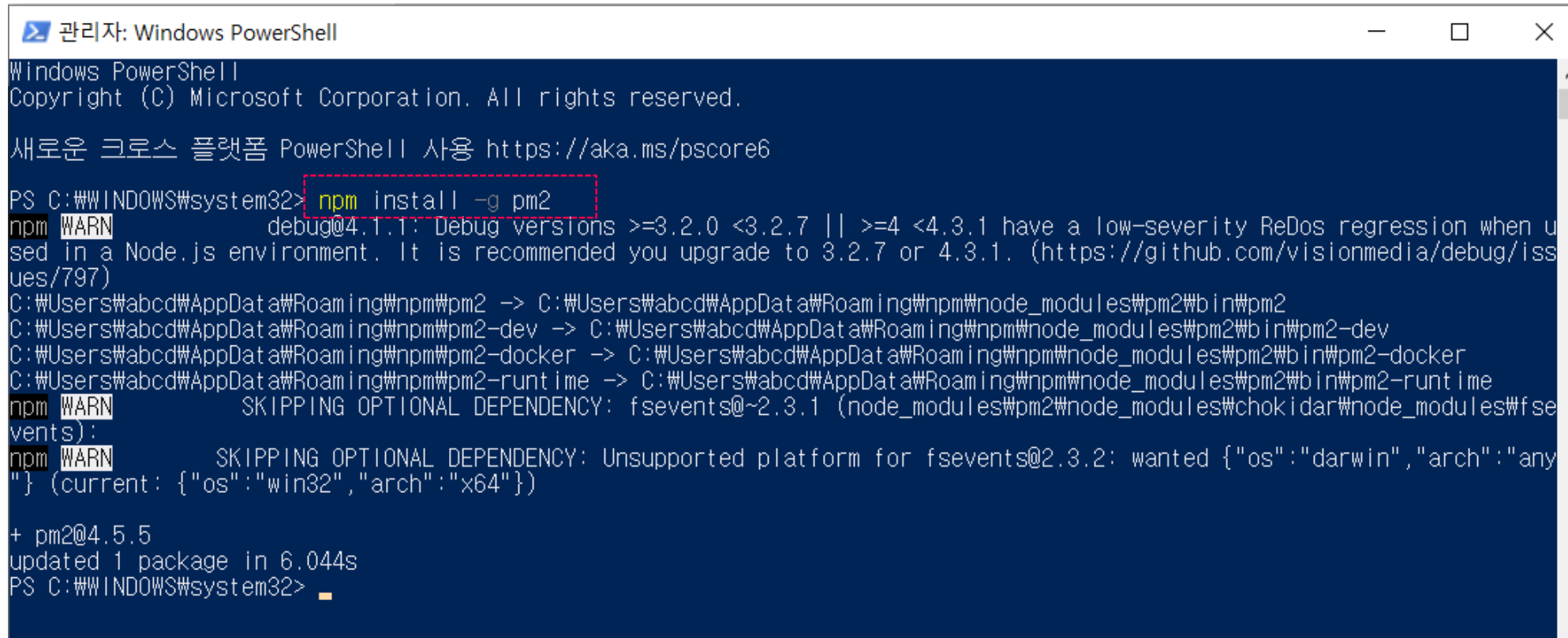
PS C:\WINDOWS\system32> node --version
v14.16.0
PS C:\WINDOWS\system32>
```

Pre-requisites

| Install PM2 (Process Manager)

1. Run powershell as administrator.
2. In order to check if simulator is running properly, PM2 needs to be installed.

Command : npm install -g pm2



```
관리자: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

새로운 크로스 플랫폼 PowerShell 사용 https://aka.ms/pscore6

PS C:\WINDOWS\system32> npm install -g pm2
npm WARN debug@4.1.1: Debug versions >=3.2.0 <3.2.7 || >=4 <4.3.1 have a low-severity ReDos regression when used in a Node.js environment. It is recommended you upgrade to 3.2.7 or 4.3.1. (https://github.com/visionmedia/debug/issues/797)
C:\Users\abcd\AppData\Roaming\npm\pm2 -> C:\Users\abcd\AppData\Roaming\npm\node_modules\pm2\bin\pm2
C:\Users\abcd\AppData\Roaming\npm\pm2-dev -> C:\Users\abcd\AppData\Roaming\npm\node_modules\pm2\bin\pm2-dev
C:\Users\abcd\AppData\Roaming\npm\pm2-docker -> C:\Users\abcd\AppData\Roaming\npm\node_modules\pm2\bin\pm2-docker
C:\Users\abcd\AppData\Roaming\npm\pm2-runtime -> C:\Users\abcd\AppData\Roaming\npm\node_modules\pm2\bin\pm2-runtime
npm WARN SKIPPING OPTIONAL DEPENDENCY: fsevents@~2.3.1 (node_modules\pm2\node_modules\chokidar\node_modules\fsevents):
npm WARN SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.3.2: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32","arch":"x64"})

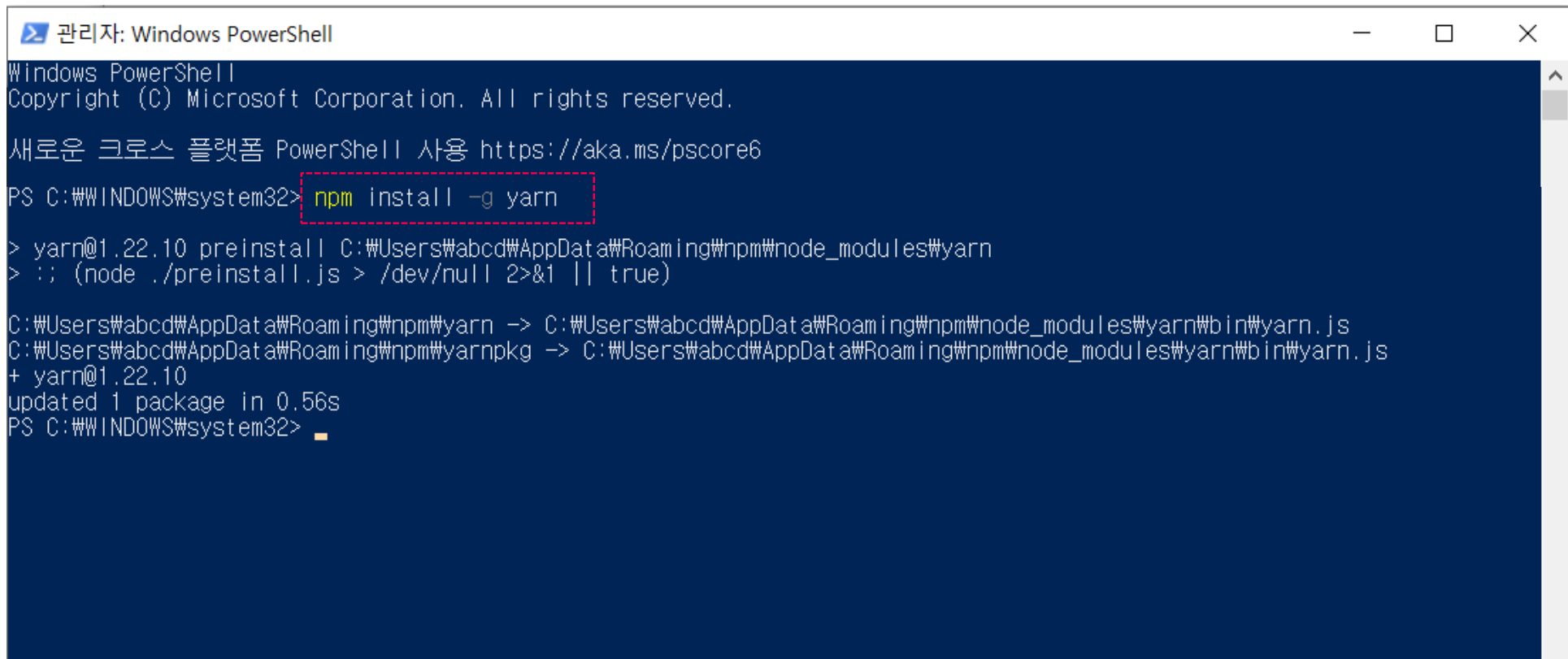
+ pm2@4.5.5
updated 1 package in 6.044s
PS C:\WINDOWS\system32>
```

Pre-requisites

| Install yarn

1. In order to install simulator properly, package manager Yarn needs to be installed.

- Command : `npm install -g yarn`



```
관리자: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

새로운 크로스 플랫폼 PowerShell 사용 https://aka.ms/pscore6

PS C:\WINDOWS\system32> npm install -g yarn

> yarn@1.22.10 preinstall C:\Users\abcd\AppData\Roaming\npm\node_modules\yarn
> ; (node ./preinstall.js > /dev/null 2>&1 || true)

C:\Users\abcd\AppData\Roaming\npm\yarn -> C:\Users\abcd\AppData\Roaming\npm\node_modules\yarn\bin\yarn.js
C:\Users\abcd\AppData\Roaming\npm\yarnpkg -> C:\Users\abcd\AppData\Roaming\npm\node_modules\yarn\bin\yarn.js
+ yarn@1.22.10
updated 1 package in 0.56s
PS C:\WINDOWS\system32>
```

STEP 1



Installation : Simulator on winPC

Pre-requisites / **PMS simulator** / QMS simulator



Connection : Simulator ↔ Pro:Centric

Set External Server (PMS/QMS) on Admin Client (Pro:Centric)



Setting : Guest Service

Template

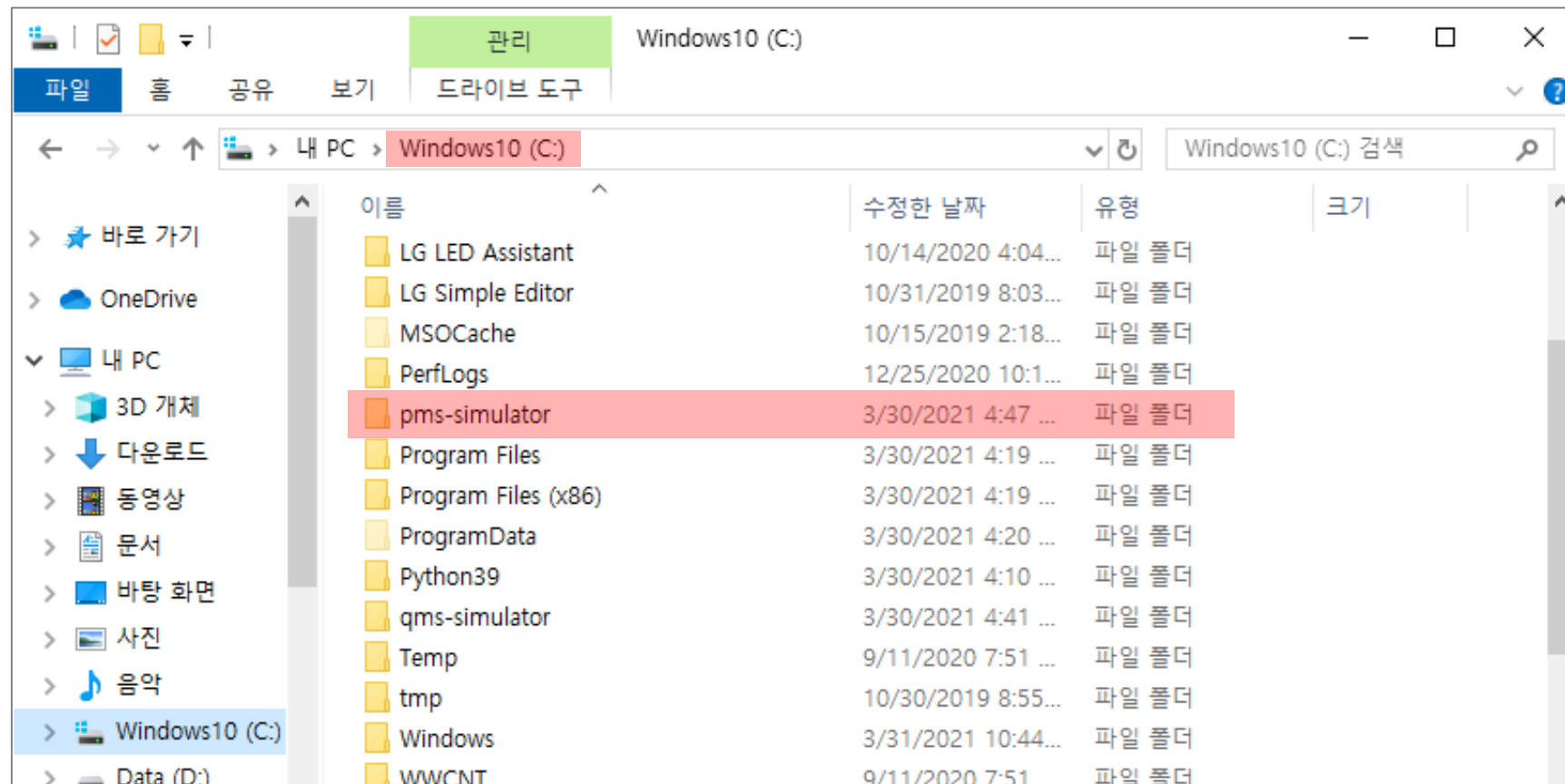


Demonstration

Install Simulator

| Install PMS Simulator

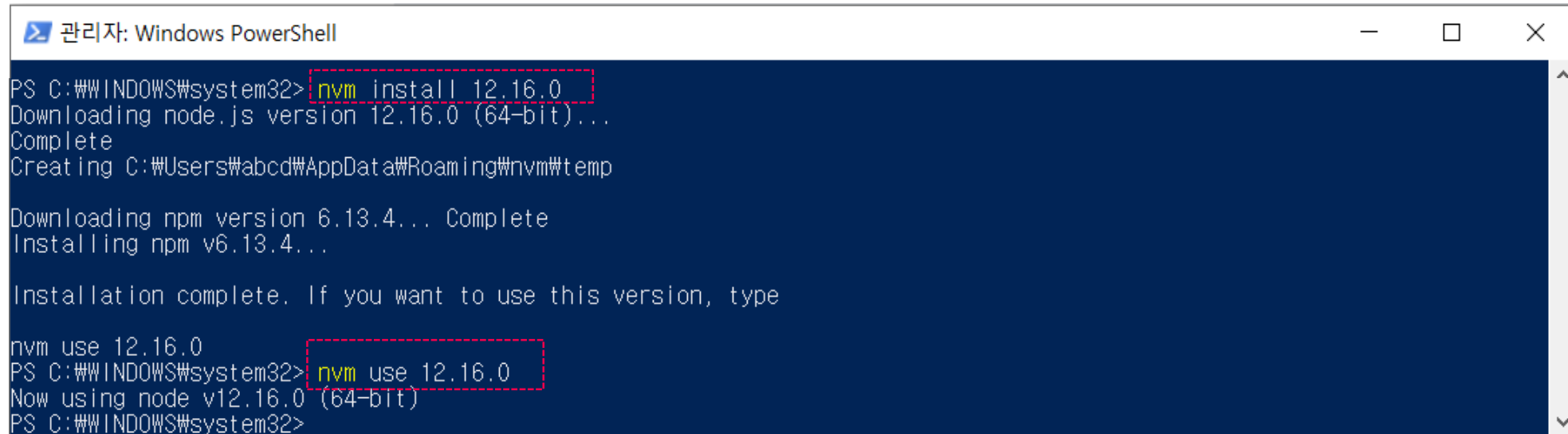
1. Download PMS simulator under C:



Install Simulator

| Install PMS Simulator

2. Open Powershell as administrator.
3. Install & Use [nvm 12.16.0] by typing command.
 - Command : nvm install 12.16.0
 - Command : nvm use 12.16.0



```
관리자: Windows PowerShell
PS C:\WINDOWS\system32> nvm install 12.16.0
Downloading node.js version 12.16.0 (64-bit)...
Complete
Creating C:\Users\abcd\AppData\Roaming\nvm\temp

Downloading npm version 6.13.4... Complete
Installing npm v6.13.4...

Installation complete. If you want to use this version, type

nvm use 12.16.0
PS C:\WINDOWS\system32> nvm use 12.16.0
Now using node v12.16.0 (64-bit)
PS C:\WINDOWS\system32>
```

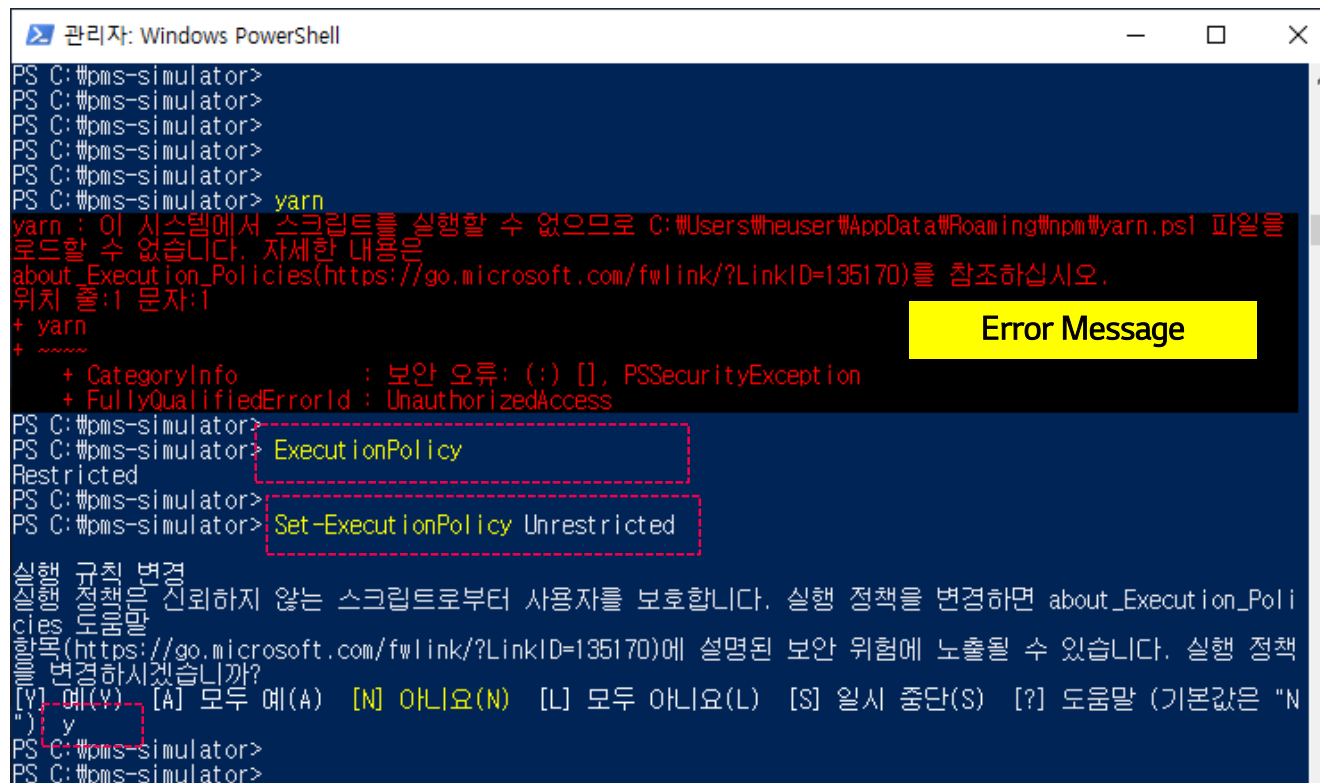

Install Simulator

Install PMS Simulator

If Error Message is shown on screen,

E-1. Check [Execution Policy] and Set [Unrestricted]

- 1) Command : ExecutionPolicy
- 2) Command : Set-ExecutionPolicy Unrestricted
- 3) Select [YES]

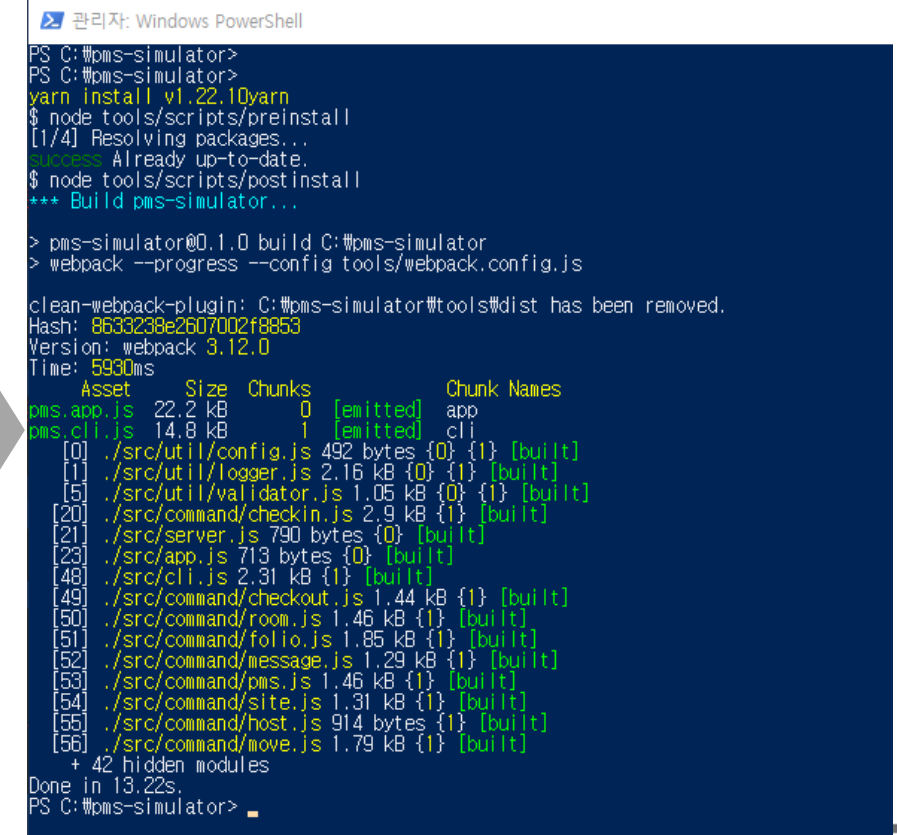


```
관리자: Windows PowerShell
PS C:\pms-simulator>
PS C:\pms-simulator>
PS C:\pms-simulator>
PS C:\pms-simulator>
PS C:\pms-simulator> yarn
yarn : 이 시스템에서 스크립트를 실행할 수 없으므로 C:\Users\heuser\AppData\Roaming\npm\yarn.ps1 파일을
로드할 수 없습니다. 자세한 내용은
about_Execution_Policies(https://go.microsoft.com/fwlink/?LinkID=135170)를 참조하십시오.
위치 줄:1 문자:1
+ yarn
+ ~~~~
+ CategoryInfo          : 보안 오류: (:) [], PSSecurityException
+ FullyQualifiedErrorId : UnauthorizedAccess

PS C:\pms-simulator> ExecutionPolicy
Restricted
PS C:\pms-simulator> Set-ExecutionPolicy Unrestricted
실행 규칙 변경
실행 정책을 신뢰하지 않는 스크립트로부터 사용자를 보호합니다. 실행 정책을 변경하면 about_Execution_Poli
cies 도움말
함록(https://go.microsoft.com/fwlink/?LinkID=135170)에 설명된 보안 위험에 노출될 수 있습니다. 실행 정책
을 변경하시겠습니까?
[Y] 예(Y) [A] 모두 예(A) [N] 아니요(N) [L] 모두 아니요(L) [S] 일시 중단(S) [?] 도움말 (기본값은 "N
") y
PS C:\pms-simulator>
PS C:\pms-simulator>
```

E-2. Try again.

- Command : yarn



```
관리자: Windows PowerShell
PS C:\pms-simulator>
PS C:\pms-simulator>
yarn install v1.22.10
$ node tools/scripts/preinstall
[1/4] Resolving packages...
success Already up-to-date.
$ node tools/scripts/postinstall
*** Build pms-simulator...

> pms-simulator@0.1.0 build C:\pms-simulator
> webpack --progress --config tools/webpack.config.js

clean-webpack-plugin: C:\pms-simulator\tools\dist has been removed.
Hash: 8633238e2607002f8853
Version: webpack 3.12.0
Time: 5930ms

   Asset      Size      Chunks             Chunk Names
cms.app.js  22.2 kB           0  [emitted]  app
cms.cli.js   14.8 kB           1  [emitted]  cli
   [0] ./src/util/config.js 492 bytes {0} {1} [built]
   [1] ./src/util/logger.js 2.15 kB {0} {1} [built]
   [5] ./src/util/validator.js 1.05 kB {0} {1} [built]
  [20] ./src/command/checkin.js 2.9 kB {1} [built]
  [21] ./src/server.js 790 bytes {0} [built]
  [23] ./src/app.js 713 bytes {0} [built]
  [48] ./src/cli.js 2.31 kB {1} [built]
  [49] ./src/command/checkout.js 1.44 kB {1} [built]
  [50] ./src/command/room.js 1.46 kB {1} [built]
  [51] ./src/command/folio.js 1.85 kB {1} [built]
  [52] ./src/command/message.js 1.29 kB {1} [built]
  [53] ./src/command/pms.js 1.46 kB {1} [built]
  [54] ./src/command/site.js 1.31 kB {1} [built]
  [55] ./src/command/host.js 914 bytes {1} [built]
  [56] ./src/command/move.js 1.79 kB {1} [built]
      + 42 hidden modules

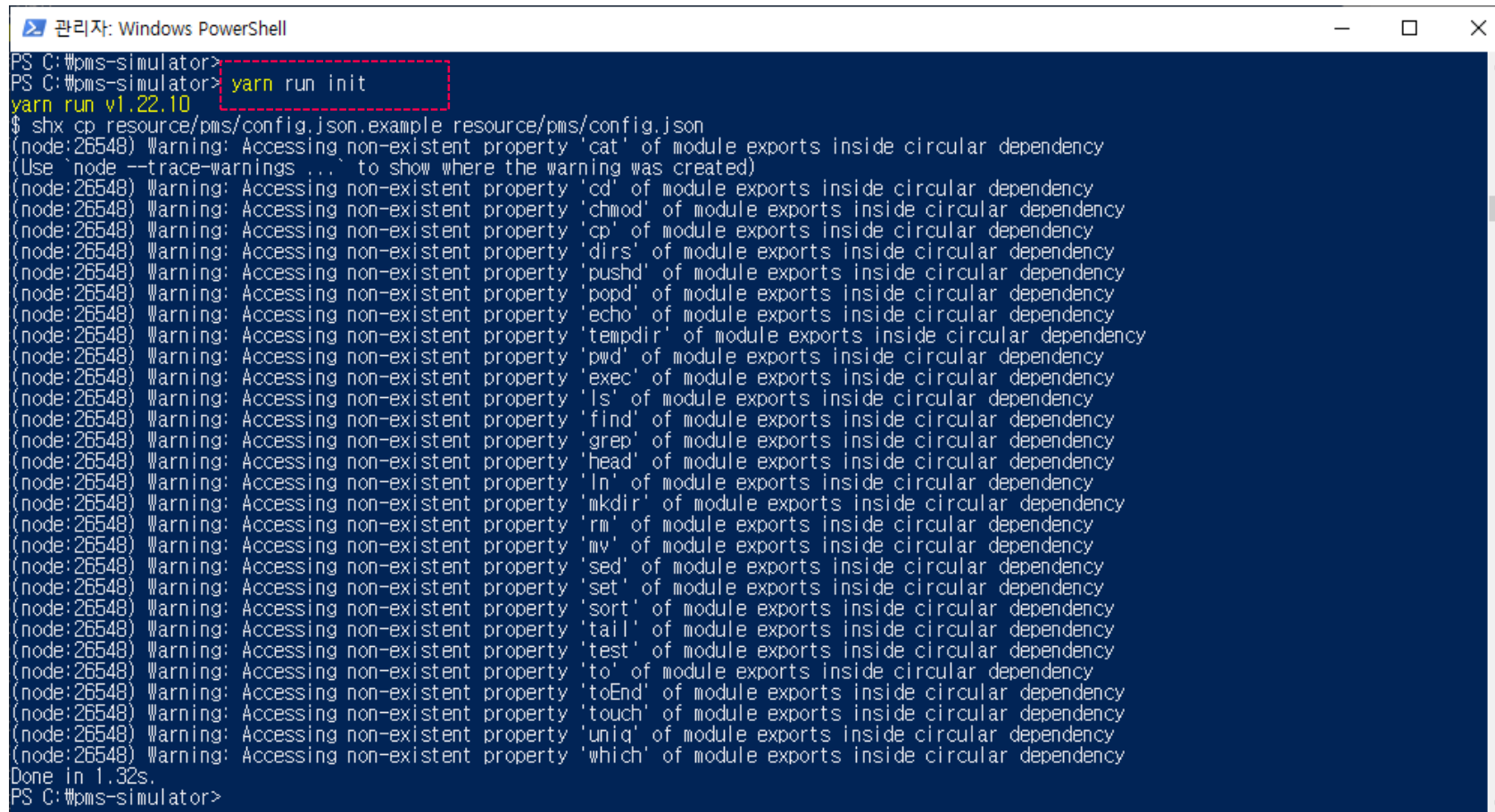
Done in 13.22s.
PS C:\pms-simulator>
```

Install Simulator

| Turn on PMS Simulator

5. Initiate PMS simulator.

- Command : yarn run init



```
관리자: Windows PowerShell
PS C:\pms-simulator>
PS C:\pms-simulator> yarn run init
yarn run v1.22.10
$ shx cp resource/pms/config.json.example resource/pms/config.json
(node:26548) Warning: Accessing non-existent property 'cat' of module exports inside circular dependency
(Use 'node --trace-warnings ...' to show where the warning was created)
(node:26548) Warning: Accessing non-existent property 'cd' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'chmod' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'cp' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'dirs' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'pushd' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'popd' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'echo' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'tempdir' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'pwd' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'exec' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'ls' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'find' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'grep' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'head' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'ln' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'mkdir' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'rm' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'mv' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'sed' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'set' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'sort' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'tail' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'test' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'to' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'toEnd' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'touch' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'uniq' of module exports inside circular dependency
(node:26548) Warning: Accessing non-existent property 'which' of module exports inside circular dependency
Done in 1.32s.
PS C:\pms-simulator>
```

Install Simulator

Turn on PMS Simulator

6. Start PMS simulator.

- Command : yarn run start

```
관리자: Windows PowerShell
PS C:\pms-simulator>
PS C:\pms-simulator> yarn run start
yarn run v1.22.10
$ pm2 start tools/ecosystem.config.js
(node:7204) Warning: Accessing non-existent property 'cat' of module exports inside circular dependency
(Use 'node --trace-warnings ...' to show where the warning was created)
(node:7204) Warning: Accessing non-existent property 'cd' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'chmod' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'cp' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'dirs' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'pushd' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'popd' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'echo' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'tempdir' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'pwd' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'exec' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'ls' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'find' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'grep' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'head' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'ln' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'mkdir' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'rm' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'mv' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'sed' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'set' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'sort' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'tail' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'test' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'to' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'toEnd' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'touch' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'uniq' of module exports inside circular dependency
(node:7204) Warning: Accessing non-existent property 'which' of module exports inside circular dependency
>>>> In-memory PM2 is out-of-date, do:
>>>> $ pm2 update
In memory PM2 version: 4.5.5
Local PM2 version: 2.10.4
[PM2] Applying action restartProcessId on app [pms-simulator](ids: [ 0 ])
[PM2] [pms-simulator](0) ✓

```

App name	id	mode	pid	status	restart	uptime	cpu	mem	user	watching
pms-simulator	0	fork	11720	online	1	2s	81.3%	41.2 MB	saebom.kim	disabled

```
Use 'pm2 show <id|name>' to get more details about an app.
Done in 8.75s.
PS C:\pms-simulator>
```



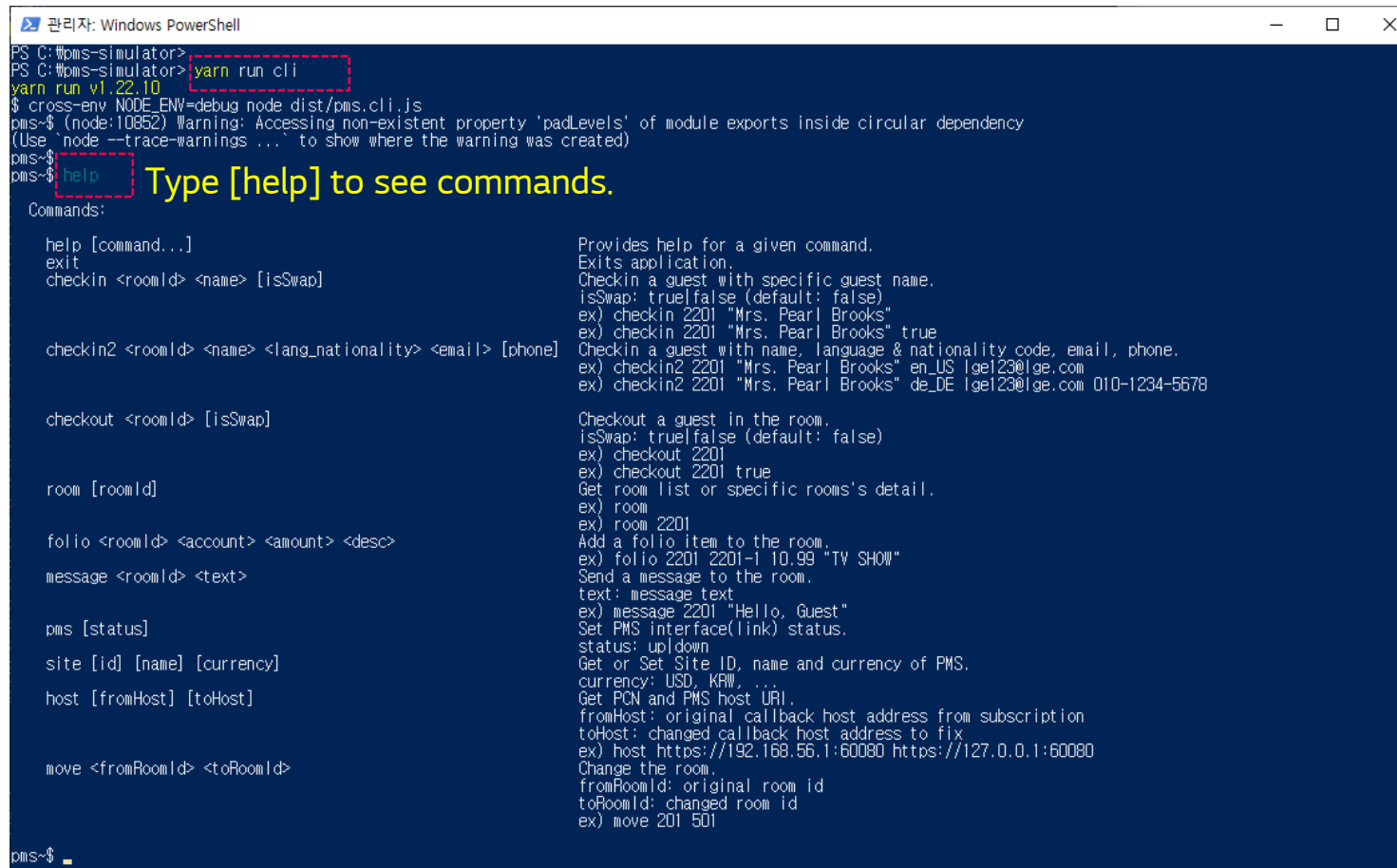
Status of simulator is also able to check by command : pm2 status

Install Simulator

| Go to PMS Simulator

7. Start PMS simulator.

- Command : yarn run cli



```
PS C:\pms-simulator> yarn run cli
yarn run v1.22.10
$ cross-env NODE_ENV=debug node dist/pms.cli.js
pms-$ (node:10852) Warning: Accessing non-existent property 'padLevels' of module exports inside circular dependency
(Use 'node --trace-warnings ...' to show where the warning was created)
pms-$ help
pms-$
```

Type [help] to see commands.

Commands:	Description
help [command...]	Provides help for a given command.
exit	Exits application.
checkin <roomId> <name> [isSwap]	Checkin a guest with specific guest name. isSwap: true/false (default: false) ex) checkin 2201 "Mrs. Pearl Brooks" ex) checkin 2201 "Mrs. Pearl Brooks" true
checkin2 <roomId> <name> <lang_nationality> <email> [phone]	Checkin a guest with name, language & nationality code, email, phone. ex) checkin2 2201 "Mrs. Pearl Brooks" en_US lge123@lge.com ex) checkin2 2201 "Mrs. Pearl Brooks" de_DE lge123@lge.com 010-1234-5678
checkout <roomId> [isSwap]	Checkout a guest in the room. isSwap: true/false (default: false) ex) checkout 2201 ex) checkout 2201 true
room [roomId]	Get room list or specific rooms's detail. ex) room ex) room 2201
folio <roomId> <account> <amount> <desc>	Add a folio item to the room. ex) folio 2201 2201-1 10.99 "TV SHOW"
message <roomId> <text>	Send a message to the room. text: message text ex) message 2201 "Hello, Guest"
pms [status]	Set PMS interface(link) status. status: up/down
site [id] [name] [currency]	Get or Set Site ID, name and currency of PMS. currency: USD, KRW, ...
host [fromHost] [toHost]	Get PCN and PMS host URI. fromHost: original callback host address from subscription toHost: changed callback host address to fix ex) host https://192.168.56.1:60080 https://127.0.0.1:60080
move <fromRoomId> <toRoomId>	Change the room. fromRoomId: original room id toRoomId: changed room id ex) move 201 501

STEP 1



Installation : Simulator on winPC

Pre-requisites / PMS simulator / **QMS simulator**



Connection : Simulator ↔ Pro:Centric

Set External Server (PMS/QMS) on Admin Client (Pro:Centric)



Setting : Guest Service

Template

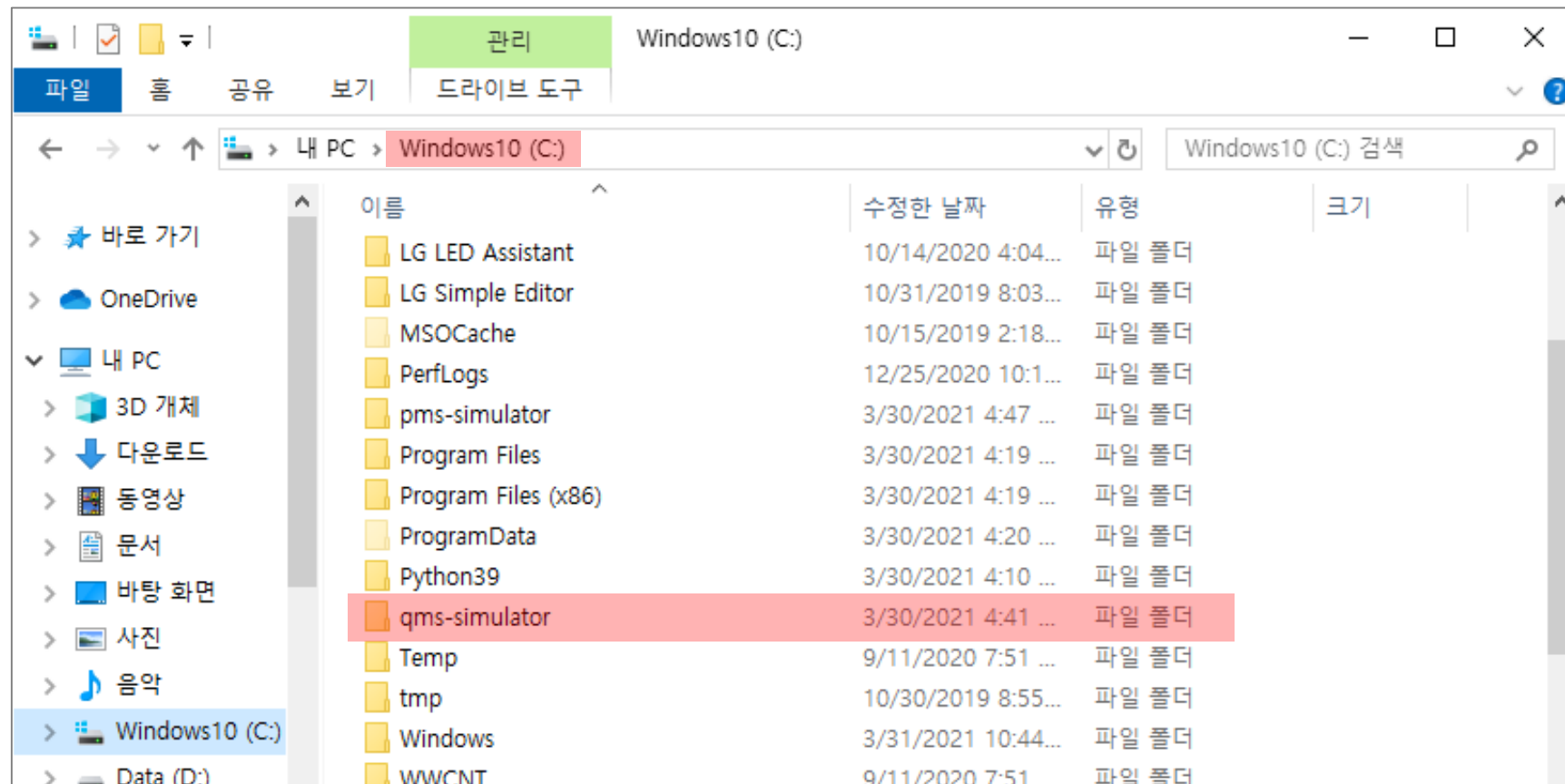


Demonstration

Install Simulator

| Install QMS Simulator

1. Download QMS simulator under C:



Install Simulator

| Install QMS Simulator

4. Start Yarn to install QMS simulator.

1) Move to pms-simulator folder.

```
관리자: Windows PowerShell
PS C:\Users\weuser>
PS C:\Users\weuser>
PS C:\Users\weuser>
PS C:\Users\weuser>
PS C:\Users\weuser>
PS C:\Users\weuser>
PS C:\Users\weuser>
PS C:\Users\weuser> cd..
PS C:\Users> cd..
PS C:\> cd .\qms-simulator\
PS C:\qms-simulator>
```

2) Command : yarn

```
관리자: Windows PowerShell
PS C:\qms-simulator>
PS C:\qms-simulator> yarn
yarn install v1.22.10
$ node tools/scripts/preinstall
[1/4] Resolving packages...
success Already up-to-date.
$ node tools/scripts/postinstall
*** Build qms-simulator...

> qms-simulator@0.1.0 build C:\qms-simulator
> webpack --progress --config tools/webpack.config.js

clean-webpack-plugin: C:\qms-simulator\tools\dist has been removed.
Hash: 6ea142acb4a1d139719d
Version: webpack 3.11.0
Time: 8990ms

   Asset      Size  Chunks             Chunk Names
qms.app.js  29.9 kB          0  [emitted]  app
qms.cli.js   25.5 kB          1  [emitted]  cli
   [0] ./src/util/config.js 492 bytes {0} {1} [built]
   [2] ./src/util/logger.js 2.16 kB {0} {1} [built]
   [5] ./src/util/validator.js 1.05 kB {0} {1} [built]
   [6] ./src/util/request.js 1.17 kB {0} {1} [built]
  [24] ./src/server.js 790 bytes {0} [built]
  [26] ./src/app.js 713 bytes {0} [built]
  [56] ./src/cli.js 4.16 kB {1} [built]
  [57] ./src/command/host.js 924 bytes {1} [built]
  [58] ./src/command/servicelist.js 4.03 kB {1} [built]
  [59] ./src/command/job.js 1.13 kB {1} [built]
  [60] ./src/command/amenity.js 4.69 kB {1} [built]
  [61] ./src/command/wakeupcall.js 4.36 kB {1} [built]
  [62] ./src/command/reservation.js 4.93 kB {1} [built]
  [63] ./src/command/service.js 5.08 kB {1} [built]
  [64] ./src/command/channel.js 4.7 kB {1} [built]
+ 50 hidden modules
Done in 20.76s.
PS C:\qms-simulator>
```

Install Simulator

Turn on QMS Simulator

5. Initiate QMS simulator.

- Command : yarn run init

```
관리자: Windows PowerShell
[64] ./src/command/channel.js 4.7 kB {1} [built]
+ 50 hidden modules
Done in 20.78s.
PS C:\qms-simulator>
PS C:\qms-simulator>
PS C:\qms-simulator>
PS C:\qms-simulator>
yarn run v1.22.10or> yarn run init
$ shx cp resource/qms/config.json.example resource/qms/config.json
(node:31200) Warning: Accessing non-existent property 'cat' of module exports inside circular dependency
(Use 'node --trace-warnings ...' to show where the warning was created)
(node:31200) Warning: Accessing non-existent property 'cd' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'chmod' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'cp' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'dirs' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'pushd' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'popd' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'echo' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'tempdir' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'pwd' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'exec' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'ls' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'find' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'grep' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'head' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'ln' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'mkdir' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'rm' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'mv' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'sed' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'set' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'sort' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'tail' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'test' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'to' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'toEnd' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'touch' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'uniq' of module exports inside circular dependency
(node:31200) Warning: Accessing non-existent property 'which' of module exports inside circular dependency
Done in 1.77s.
PS C:\qms-simulator>
```

Install Simulator

Turn on QMS Simulator

6. Start QMS simulator.

- Command : yarn run start

```
관리자: Windows PowerShell
PS C:\qms-simulator>
PS C:\qms-simulator> yarn run start
yarn run v1.22.10
$ pm2 start tools/ecosystem.config.js
(node:7972) Warning: Accessing non-existent property 'cat' of module exports inside circular dependency
(Use 'node --trace-warnings ...' to show where the warning was created)
(node:7972) Warning: Accessing non-existent property 'cd' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'chmod' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'cp' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'dirs' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'pushd' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'popd' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'echo' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'tempdir' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'pwd' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'exec' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'ls' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'find' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'grep' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'head' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'ln' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'mkdir' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'rm' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'mv' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'sed' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'set' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'sort' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'tail' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'test' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'to' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'toEnd' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'touch' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'uniq' of module exports inside circular dependency
(node:7972) Warning: Accessing non-existent property 'which' of module exports inside circular dependency
[PM2] Applying action restartProcessId on app [qms-simulator](ids: [ 0 ])
[PM2] [qms-simulator](0) ✓
```

App name	id	mode	pid	status	restart	uptime	cpu	mem	user	watching
pms-simulator	1	fork	30520	online	0	20s	0%	46.1 MB	saebom.kim	disabled
qms-simulator	0	fork	21616	online	1	0s	0%	23.0 MB	saebom.kim	disabled

```
Use 'pm2 show <id|name>' to get more details about an app
Done in 4.53s.
PS C:\qms-simulator>
```



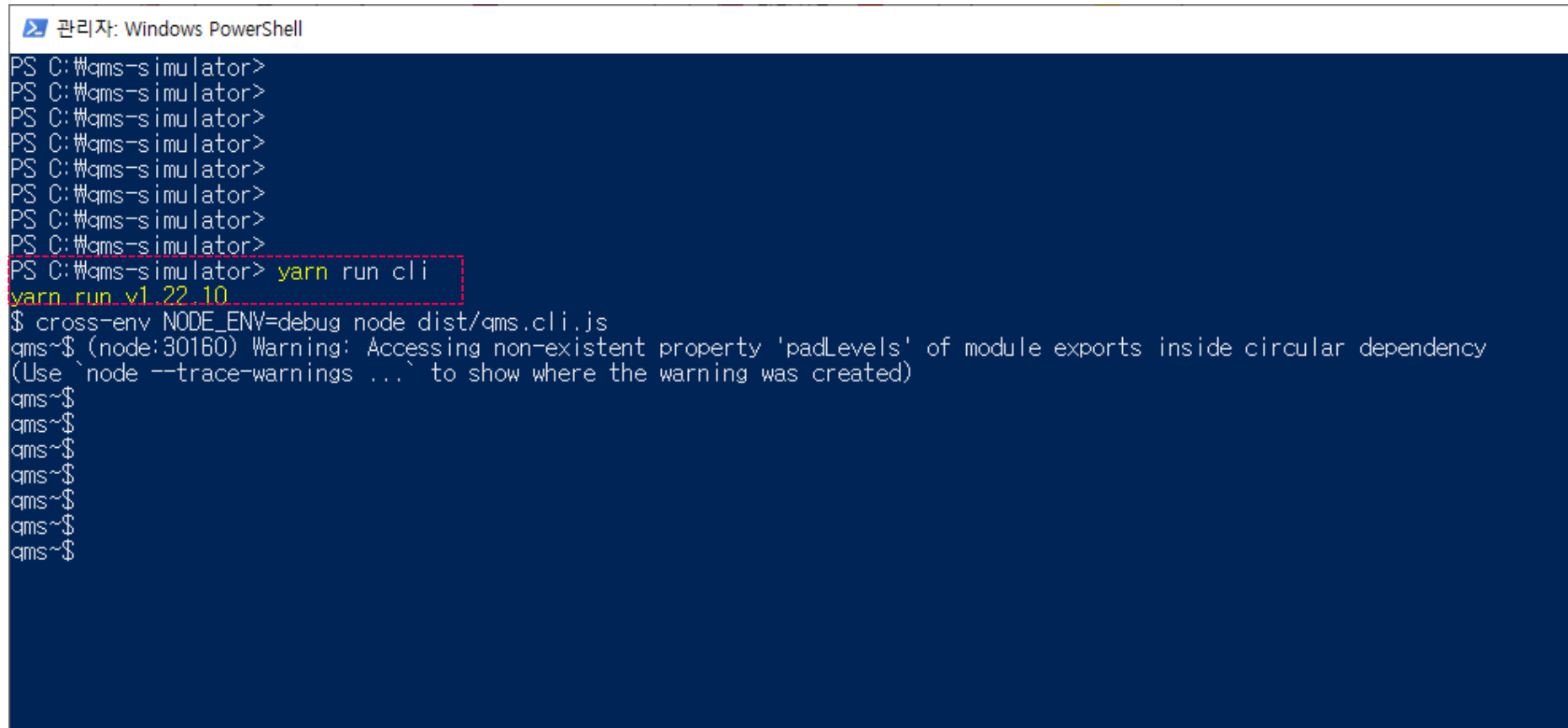
Status of simulator is also able to check by command : pm2 status

Install Simulator

| Go to QMS Simulator

7. Start QMS simulator.

- Command : yarn run cli



```
관리자: Windows PowerShell
PS C:\qms-simulator>
PS C:\qms-simulator>
PS C:\qms-simulator>
PS C:\qms-simulator>
PS C:\qms-simulator>
PS C:\qms-simulator>
PS C:\qms-simulator>
PS C:\qms-simulator>
PS C:\qms-simulator> yarn run cli
yarn run v1.22.10
$ cross-env NODE_ENV=debug node dist/qms.cli.js
qms~$ (node:30160) Warning: Accessing non-existent property 'padLevels' of module exports inside circular dependency
(Use `node --trace-warnings ...` to show where the warning was created)
qms~$
qms~$
qms~$
qms~$
qms~$
qms~$
qms~$
qms~$
```

STEP 2



Installation : Simulator on winPC

Pre-requisites / PMS simulator / QMS simulator



Connection : Simulator ↔ Pro:Centric

Set External Server (PMS/QMS) on Admin Client (Pro:Centric)



Setting : Guest Service

Template



Demonstration

Connect Simulator – Pro:Centric

| Connect PMS Simulator

1. Add 2way PMS

- Path : [Settings] – [External Service] – [External Server]

2. Save

3. Fetch Data

Admin Client

Pro:Centric PROJECT HISTORY MANAGER SETTINGS Data Viewer pro

EXTERNAL SERVER

External Server Setting

EDIT EXTERNAL SERVER

Server Name: PMS ☐

PMS Type: Open API

Type: ☐ HTTPS ☒ HTTP

Host: 192.168.36.2

Port: 9890

Prefix: /api/pms/v2

Check PMS Status: ☐

Auth:

KEY	VALUE
client_id	pms_id
client_secret	pms_secret

2 **1**

FETCH DATA **SAVE** **CANCEL**

TYPE

TYPE	STATUS	EDIT
HTTPS	<input type="checkbox"/>	
HTTPS	<input checked="" type="checkbox"/>	
HTTP	<input checked="" type="checkbox"/>	
HTTPS	<input checked="" type="checkbox"/>	
HTTP	<input checked="" type="checkbox"/>	

* Server Setting Value

- Server Name : PMS
- PMS Type : Open API
- Type : HTTP
- Host : 192.168.36.2
- Port : 9890
- Prefix : /api/pms/v2
- Auth
 - Client_id : pms_id
 - Client_secret : pms_secret

* client_id, client_secret must be unique

PMS Simulator address

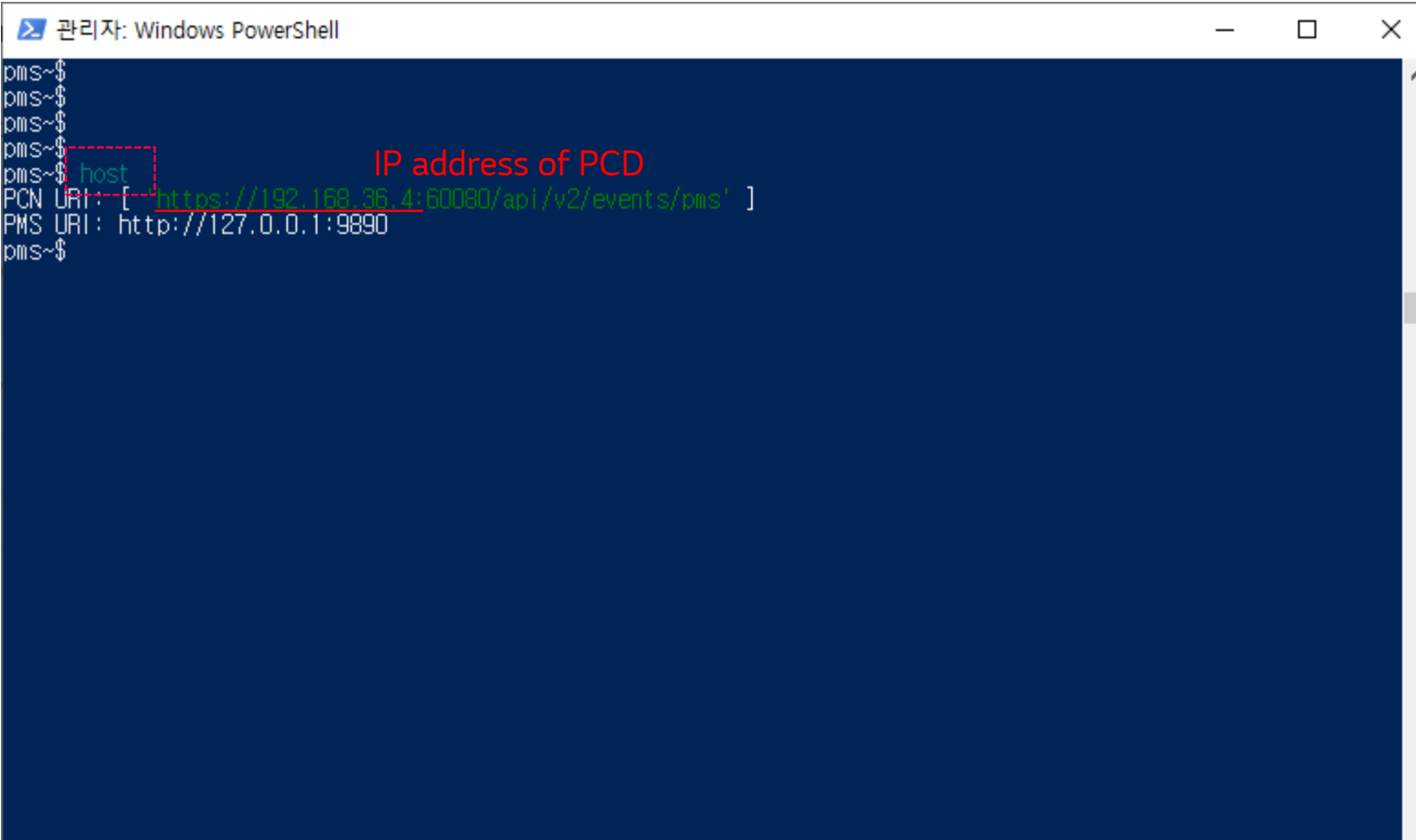
Since you installed PMS Simulator on Windows PC, Host address should be IP address of windows PC.

Connect Simulator – Pro:Centric

| Connect PMS Simulator

4. Type the command in the PMS simulator to check whether the PCD successfully communicates.

- Command : host



```
관리자: Windows PowerShell
pms~$
pms~$
pms~$
pms~$ host
PCN URI: https://192.168.36.4:60080/api/v2/events/pms' ]
PMS URI: http://127.0.0.1:9890
pms~$
```

Connect Simulator – Pro:Centric

| Connect QMS Simulator

1. Add QMS.

- Path : [Settings] – [External Service] – [External Server]

2. Save

3. Fetch Data

Pro:Centric

PROJECT HISTORY MANAGER SETTINGS Data Viewer procentric

GENERAL

VIDEO PLAYOUT

CHANNEL MAP

CHANNEL GROUP

SMART APPS

SPLASH SCREEN

TV CONFIGURATION

F/W UPDATE

TV SETUP

EXTERNAL SERVICE

WEATHER

EXTERNAL SERVER

FLIGHT

EPG

External Server Setting

ADD DELETE

SERVER

One way PMS

Travel Service

QMS

CLOUD

PMS

EDIT EXTERNAL SERVER

Server Name QMS

QMS Type Open API

Type ☐ HTTPS ☒ HTTP

Host 192.168.36.2

Port 9891

Prefix /api/qms/v3

Check in/out Notification ☒

Auth

KEY	VALUE
client_id	qms_id
client_secret	qms_secret

FETCH DATA RESET SAVE CANCEL

2 1

* Server Setting Value

- Server Name : QMS
 - PMS Type : Open API
 - Type : HTTP
 - Host : 192.168.36.2
 - Port : 9891
 - Prefix : /api/qms/v3
 - Auth
 - Client_id : qms_id
 - Client_secret : qms_secret
- * client_id, client_secret must be unique

QMS Simulator address

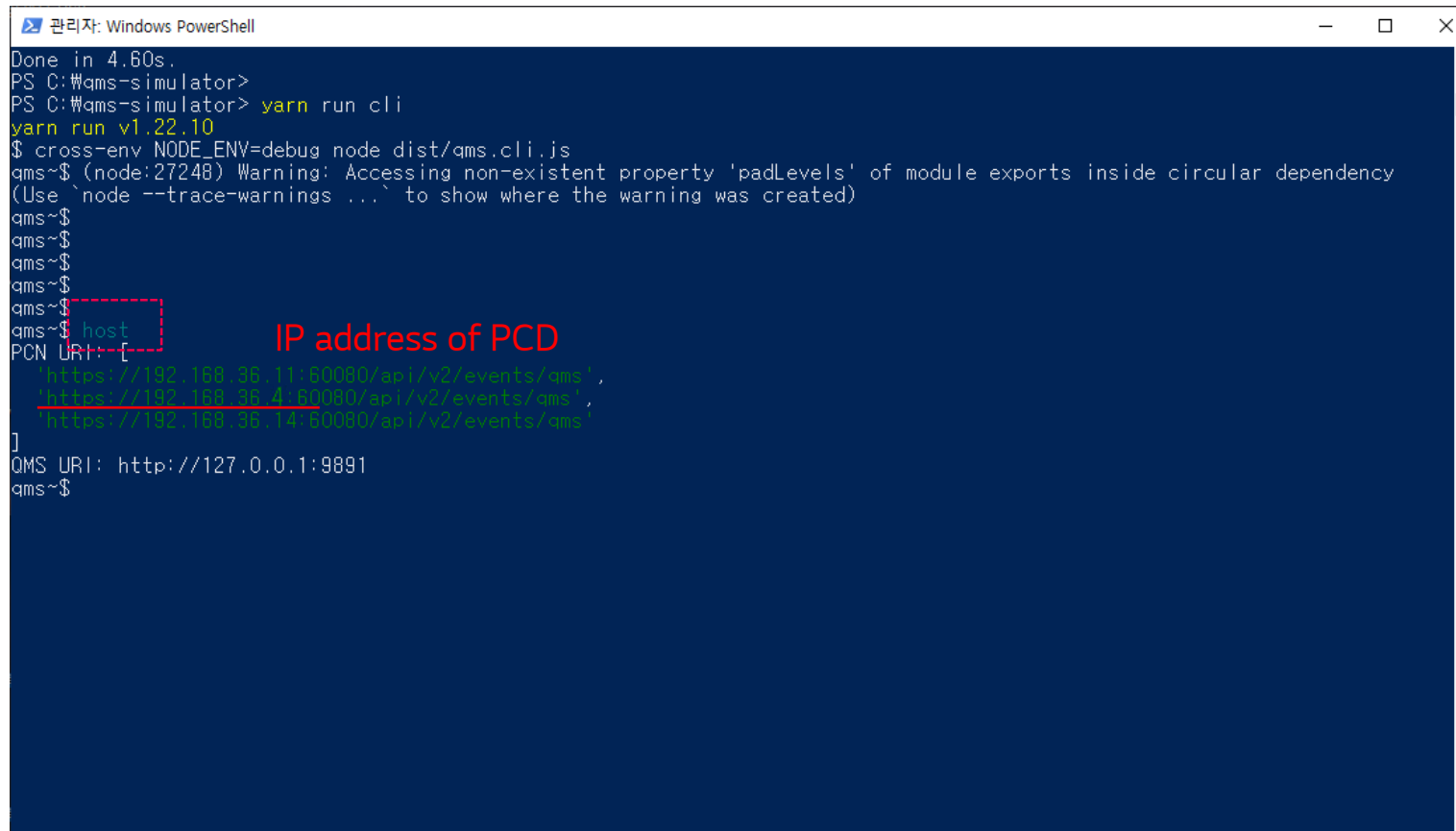
Since you installed PMS Simulator on Windows PC,
Host address should be IP address of windows PC.

Connect Simulator – Pro:Centric

| Connect QMS Simulator

4. Type the command in the QMS simulator to check whether the PCD successfully communicates.

- Command : host



```
관리자: Windows PowerShell
Done in 4.60s.
PS C:\qms-simulator>
PS C:\qms-simulator> yarn run cli
yarn run v1.22.10
$ cross-env NODE_ENV=debug node dist/qms.cli.js
qms~$ (node:27248) Warning: Accessing non-existent property 'padLevels' of module exports inside circular dependency
(Use `node --trace-warnings ...` to show where the warning was created)
qms~$
qms~$
qms~$
qms~$
qms~$
qms~$ host
PCN URI: [
  'https://192.168.36.11:60080/api/v2/events/qms',
  'https://192.168.36.4:60080/api/v2/events/qms',
  'https://192.168.36.14:60080/api/v2/events/qms'
]
QMS URI: http://127.0.0.1:9891
qms~$
```

The screenshot shows a Windows PowerShell terminal window with a dark blue background. The title bar reads "관리자: Windows PowerShell". The terminal output shows the execution of the 'yarn run cli' command, which runs a Node.js script. A warning message is displayed. The 'host' command is entered and executed, resulting in a list of three PCN URIs. A red dashed box highlights the 'host' command, and a red arrow points to it with the text "IP address of PCD". The PCN URIs are listed as follows:

- 'https://192.168.36.11:60080/api/v2/events/qms'
- 'https://192.168.36.4:60080/api/v2/events/qms'
- 'https://192.168.36.14:60080/api/v2/events/qms'

The QMS URI is also displayed as 'http://127.0.0.1:9891'.

STEP 3



Installation : Simulator on winPC

Pre-requisites / PMS simulator / QMS simulator



Connection : Simulator ↔ Pro:Centric

Set External Server (PMS/QMS) on Admin Client (Pro:Centric)



Setting : Guest Service

Template

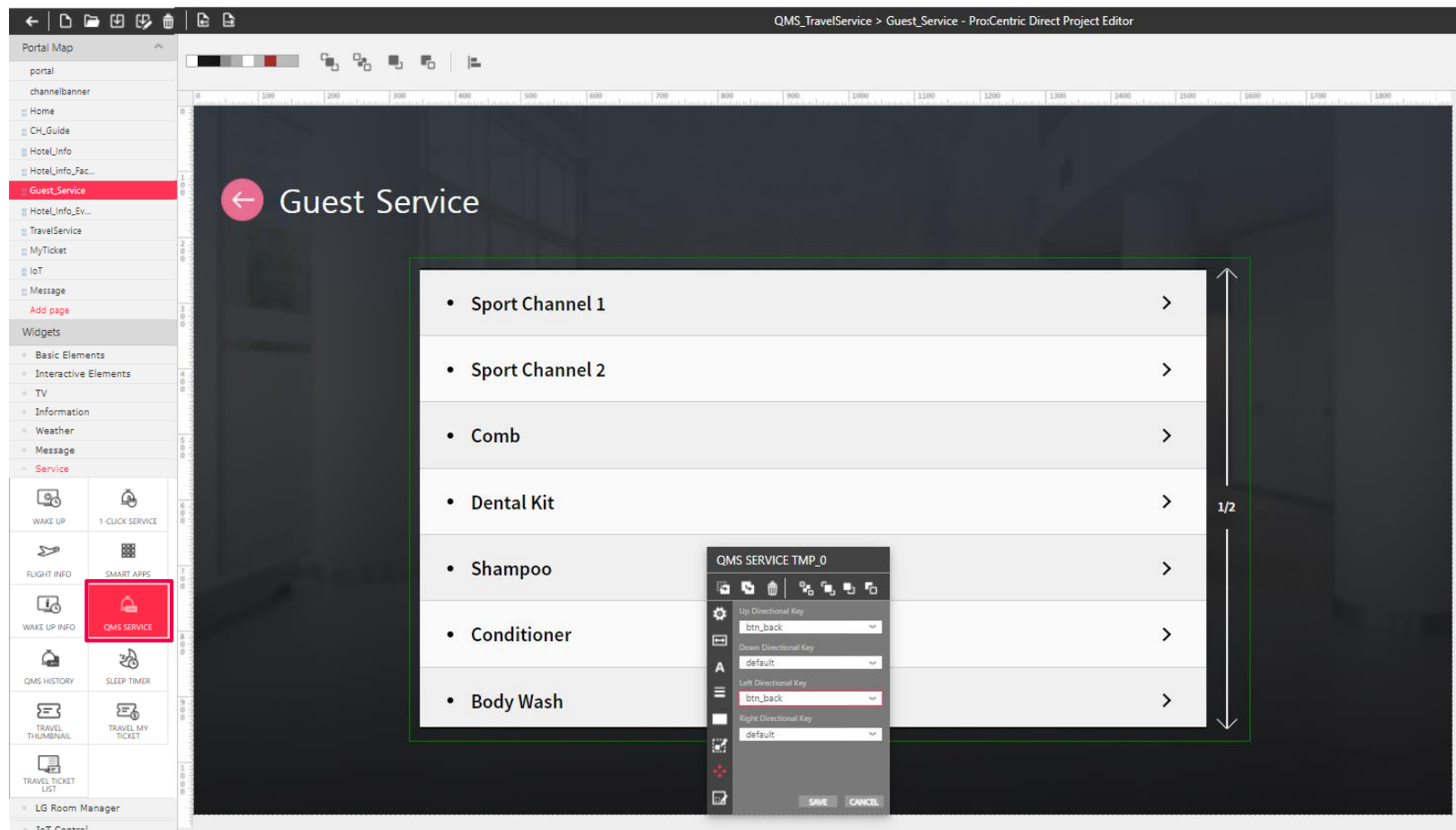


Demonstration

QMS (Guest Service)

Template

1. Add QMS service widget on Template.



QMS (Guest Service)

Template

2. Add QMS history widget on Template.

The screenshot displays the 'QMS_TravelService > My Request - ProxCentric Direct Project Editor' interface. On the left, a 'Portal Map' sidebar lists various components, with 'My Request' highlighted. Below it, a 'Widgets' section shows 'QMS HISTORY' selected. The main canvas shows a 'My Request' template with a table of services and a 'QMS HISTORY TMP_0' modal window.

laundry	Basic	Requested
DND MUR	MUR	Tue, May 21 2019 02:43 PM
shuttle	2019-05-21 04:55 Adult : 1 , Child : 1	Fri, May 10 2019 02:04 PM
channel	movie channel	Requested
amenity	Comb : 3	Requested
wakeupcall	08:00	Requested

The 'QMS HISTORY TMP_0' modal window is open, showing a list of requests with columns for Element Id, Auto-Enter, Show Day, Show Date, Show Time, and Qms Status. The status is set to 'New'.

STEP 4



Installation : Simulator on winPC

Pre-requisites / PMS simulator / QMS simulator



Connection : Simulator ↔ Pro:Centric

Set External Server (PMS/QMS) on Admin Client (Pro:Centric)



Setting : Guest Service

Template



Demonstration

Demonstration

Preparation

When rebooting window PC (Simulator)

① Turn PMS / QMS on.

- 1) Open Windows Powershell and go to the folder "pms-simulator" / "qms-simulator"
- 2) Type the command to start PMS / QMS simulator → **Command : yarn run start**

Turn on PMS Simulator

```
PS C:\#>
PS C:\#> cd pms-simulator
PS C:\#pms-simulator> yarn run start
yarn run v1.22.10
$ pm2 start tools/ecosystem.config.js
(node:21044) Warning: Accessing non-existent property 'cat' of module exports inside circular
(Use 'node --trace-warnings ...' to show where the warning was created)
(node:21044) Warning: Accessing non-existent property 'cd' of module exports inside circular
```

Turn on QMS Simulator

```
PS C:\#>
PS C:\#> cd qms-simulator
PS C:\#qms-simulator> yarn run start
yarn run v1.22.10
$ pm2 start tools/ecosystem.config.js
(node:30100) Warning: Accessing non-existent property 'cat' of module exports inside circular
(Use 'node --trace-warnings ...' to show where the warning was created)
```

Check if PMS/QMS is working. → **Command : pm2 status**

```
[PM2] [qms-simulator](1) ✓
```

App name	id	mode	pid	status	restart	uptime	cpu	mem	user	watching
pms-simulator	0	fork	6084	online	1	28s	0%	44.8 MB	saebom.kim	disabled
qms-simulator	1	fork	18000	online	1	0s	0%	28.0 MB	saebom.kim	disabled

Use 'pm2 show <id|name>' to get more details about an app

② Go to PMS / QMS.

- 1) Go to the folder "pms-simulator" / "qms-simulator"
- 2) Type the command to start PMS / QMS simulator → **Command : yarn run cli**

Go to PMS Simulator

```
PS C:\#pms-simulator>
PS C:\#pms-simulator> yarn run cli
yarn run v1.22.10
$ cross-env NODE_ENV=debug node dist/pms.cli.js
pms-$ (node:28856) Warning: Accessing non-existent property 'padLevels' of module exports inside circular
(Use 'node --trace-warnings ...' to show where the warning was created)
pms-$
pms-$
pms-$
```

Go to QMS Simulator

```
PS C:\#qms-simulator> yarn run cli
yarn run v1.22.10
$ cross-env NODE_ENV=debug node dist/qms.cli.js
qms-$ (node:28128) Warning: Accessing non-existent property 'padLevels' of module exports inside circular
(Use 'node --trace-warnings ...' to show where the warning was created)
qms-$
qms-$
```

- 3) Now you can type the command for services such as
 - PMS : Guest Name (Check in), Billing Info., Netflix, etc.
 - QMS : Guest Service, Travel Service, etc.

Demonstration

| Preparation

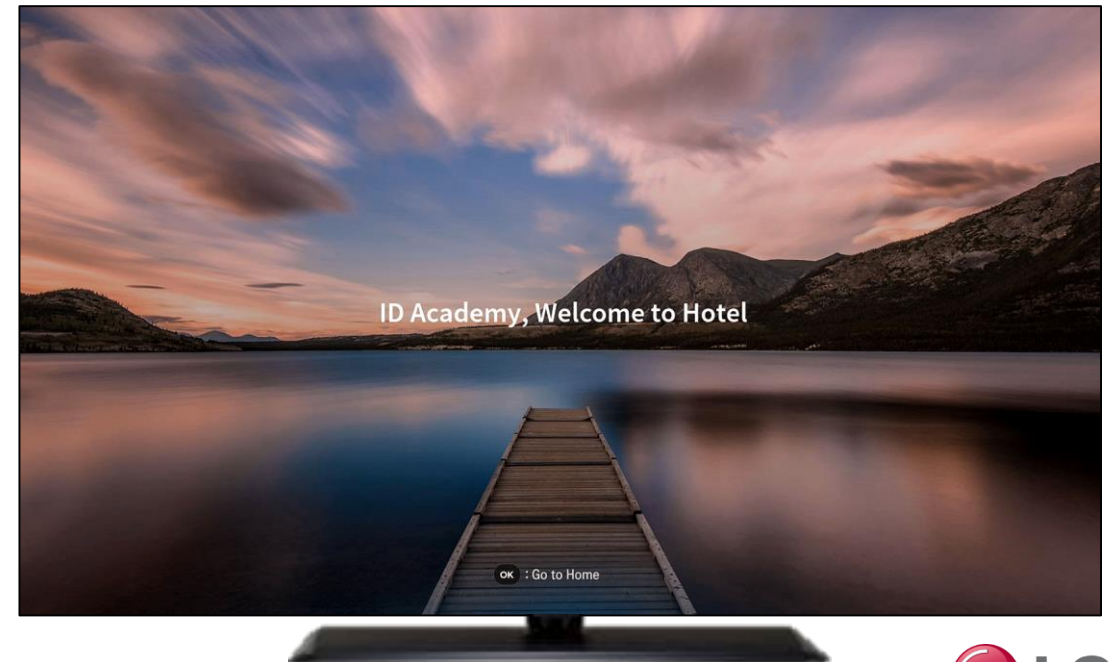
■ Check In (PMS)

In order to use QMS features, a Room must be checked in.

`checkin2` <roomId> <name> <lang_nationality> <email> [phone]

`checkin2` 3004 "ID Academy" en_US lge1111@lge.com 010-123-1234

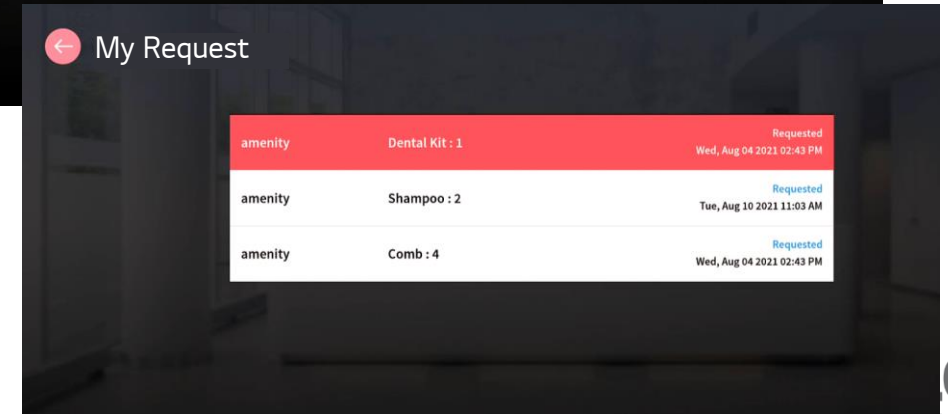
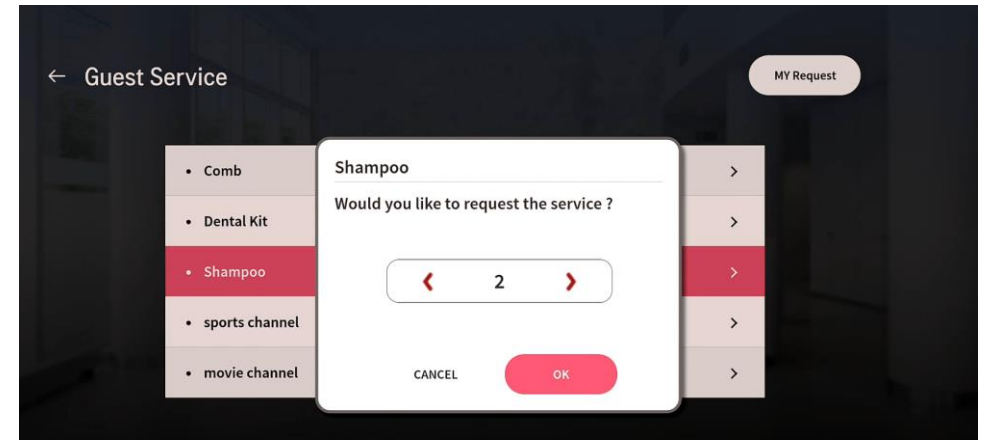
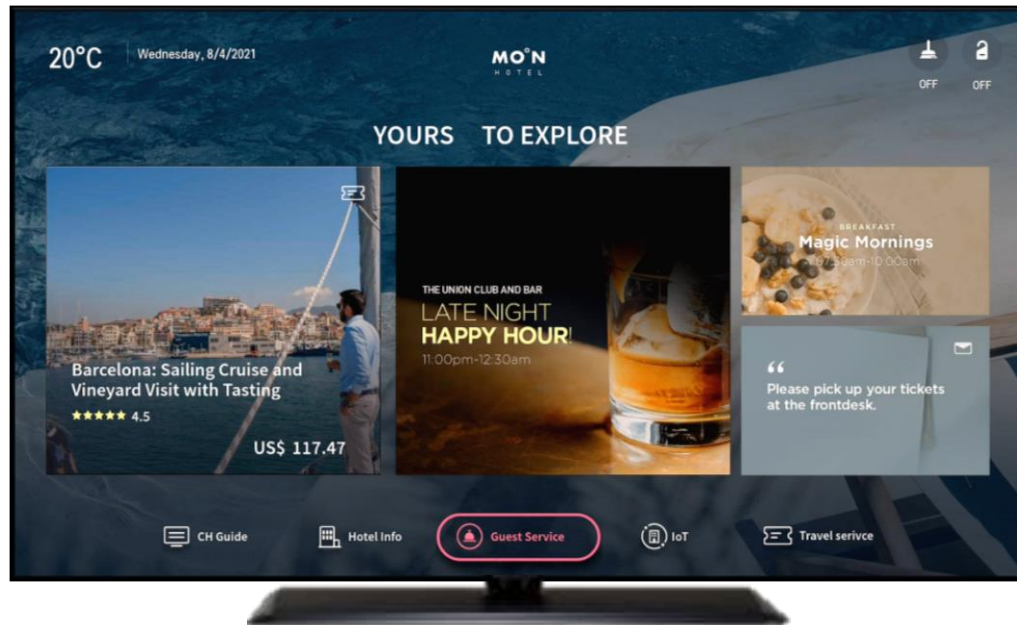
```
pms~$ checkin2 3004 "ID Academy" en_US lge1111@lge.com 010-123-1234
[
  {
    "subscriptionId": 1,
    "request": {
      "type": "checkin",
      "room": 3004,
      "checkin": {
        "room": 3004,
        "guest": null,
        "source": {
          "type": "live"
        }
      },
      "created": "2021-08-04T01:35:05.492Z",
      "pcnUri": "https://pro9l1z4166tucap3tjbmpsvq.lgprocentric.com:60080"
    },
    "response": {
      "statusCode": 200,
      "statusMessage": "success"
    }
  }
]
pms~$
```



Demonstration

| Guest Service (QMS Feature)

- Request services
- Check the request on TV screen.



Demonstration

| Guest Service (QMS Feature)

- Check the request on QMS Simulator.

`job list` <room number>

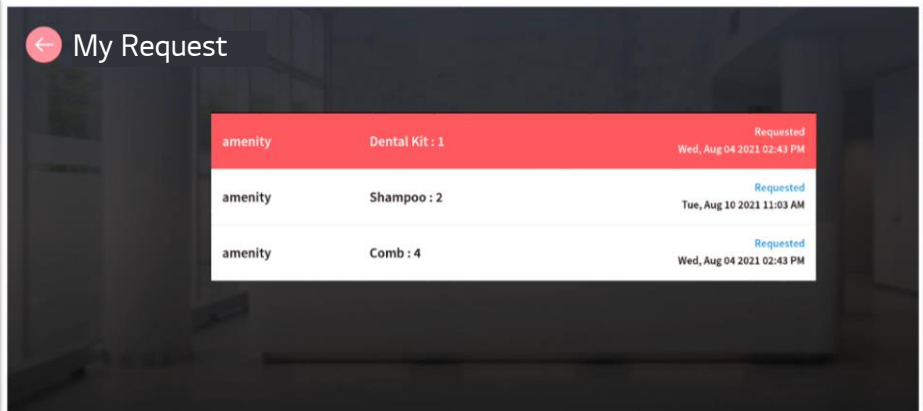
`job list` 3004

```
qms~$ job list 3004
[
  {
    "request_id": "xzXKj9_k45x28lN",
    "room_id": "3004",
    "account_id": "3004-1",
    "status": "N",
    "request_type": "amenity",
    "request_code": "449",
    "request_name": "Comb",
    "request_description": {
      "count": 4
    }
  },
  {
    "request_id": "4YuB0w20GQacGVE9",
    "room_id": "3004",
    "account_id": "3004-1",
    "status": "N",
    "request_type": "amenity",
    "request_code": "451",
    "request_name": "Dental Kit",
    "request_description": {
      "count": 1
    }
  },
  {
    "request_id": "BIdoUg-oxDAn9oR9",
    "room_id": "3004",
    "account_id": "3004-1",
    "status": "N",
    "request_type": "amenity",
    "request_code": "552",
    "request_name": "Shampoo",
    "request_description": {
      "count": 2
    }
  }
]
```

Comb (4ea) / Room 3004

Dental kit (1ea) / Room 3004

Shampoo (2ea) / Room 3004



My Request

amenity	Dental Kit : 1	Requested Wed, Aug 04 2021 02:43 PM
amenity	Shampoo : 2	Requested Tue, Aug 10 2021 11:03 AM
amenity	Comb : 4	Requested Wed, Aug 04 2021 02:43 PM

Demonstration

| Guest Service (QMS Feature)

■ Change status of request.

Example) If you want to change request status of Dental Kit. (requested → Done)

- ① Get the request ID by typing command 'job list <room number>
- ② Type the command

Service status <room number> [request_id] [Job Status]

service status 3004 4YuB0w20GQacGBE9 F

```
qms~$ job list 3004
[
  {
    "request_id": "xzXKj9_k45x28lN",
    "room_id": "3004",
    "account_id": "3004-1",
    "status": "N",
    "request_type": "amenity",
    "request_code": "449",
    "request_name": "Comb",
    "request_description": {
      "count": 4
    }
  },
  {
    "request_id": "4YuB0w20GQacGVE9",
    "room_id": "3004",
    "account_id": "3004-1",
    "status": "N",
    "request_type": "amenity",
    "request_code": "451",
    "request_name": "Dental Kit",
    "request_description": {
      "count": 1
    }
  },
]
```

* Job status

N : new
A : Assigned
F : Job Done
X : Canceled

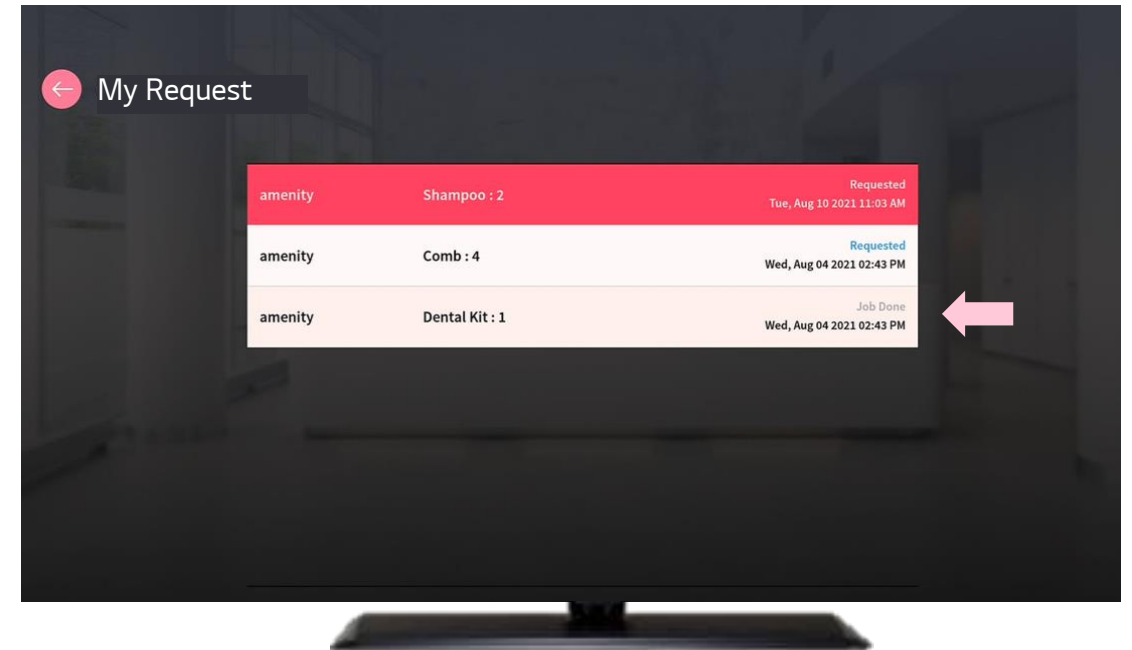
```
qms~$
qms~$
qms~$
qms~$ service status 3004 4YuB0w20GQacGVE9 F
{
  "request_id": "4YuB0w20GQacGVE9",
  "room_id": "3004",
  "account_id": "3004-1",
  "status": "F",
  "request_type": "amenity",
  "request_code": "451",
  "request_name": "Dental Kit",
  "request_description": {
    "count": 1
  },
  "type": "request"
}
```

Demonstration

| Guest Service (QMS Feature)

- Check that the status has changed.

```
qms~$ job list 3004
[
  {
    "request_id": "xzXKj9_k45x28lN",
    "room_id": "3004",
    "account_id": "3004-1",
    "status": "N",
    "request_type": "amenity",
    "request_code": "449",
    "request_name": "Comb",
    "request_description": {
      "count": 4
    }
  },
  {
    "request_id": "4YuB0w20GQacGVE9",
    "room_id": "3004",
    "account_id": "3004-1",
    "status": "F",
    "request_type": "amenity",
    "request_code": "451",
    "request_name": "Dental Kit",
    "request_description": {
      "count": 1
    }
  },
  {
    "request_id": "BIIdUg-oxDAn9oR9",
    "room_id": "3004",
    "account_id": "3004-1",
    "status": "N",
    "request_type": "amenity",
    "request_code": "552",
    "request_name": "Shampoo",
    "request_description": {
      "count": 2
    }
  }
]
```



Demonstration

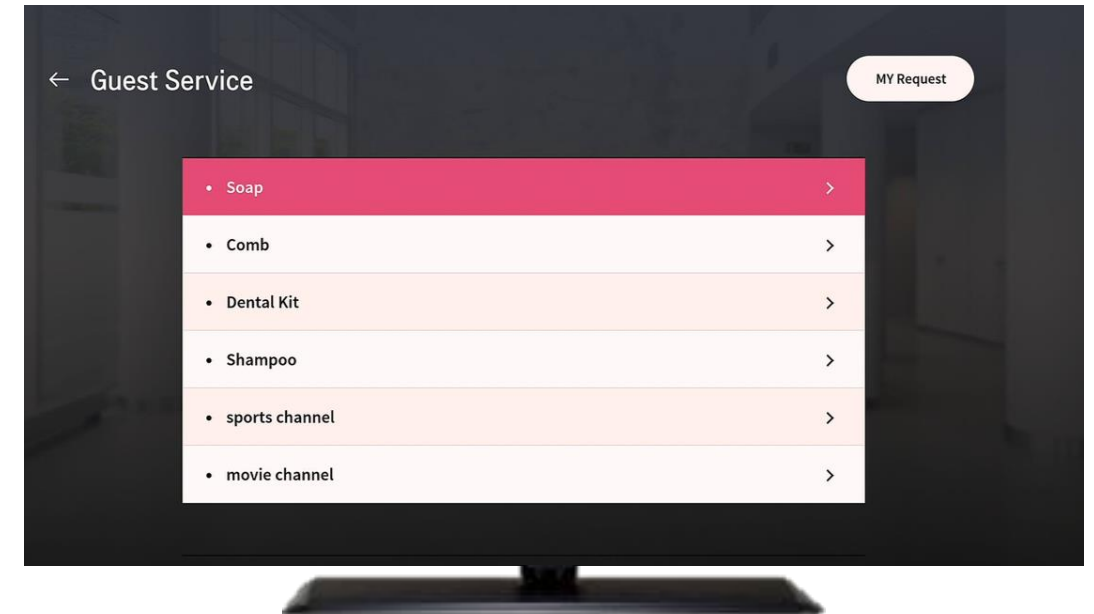
| Guest Service (QMS Feature)

- Add a service on the list.

Servicelist set [code] [name] [type]
servicelist set 111 "Soap" "amenity"

```
qms~$ servicelist set 111 "Soap" "amenity"
[
  {
    "subscriptionId": 1,
    "request": {
      "type": "service",
      "services": [
        {
          "code": "449",
          "type": "amenity",
          "name": "Comb"
        },
        {
          "code": "451",
          "type": "amenity",
          "name": "Dental Kit"
        },
        {
          "code": "111",
          "isTransportation": 0,
          "isWakeupCall": 0,
          "name": "Soap",
          "type": "amenity",
          "description": {
            "price": "",
            "display": ""
          },
          "group": ""
        }
      ]
    },
    "pcnUri": "https://pro9l1z4166tucap3tjbmpsvq.lgprocentric.com:60080"
  },
  "response": {
    "statusCode": 200,
    "statusMessage": "success"
  }
}
```

service added : SOAP



NOTE

