








Project






























- Project  
-  Plane.so 
- BIM + PM ( ) 

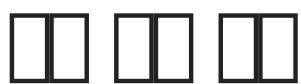
Project管理 工具

- **OpenProject** - 自 建, 自 建, 自 建 自 建
- **Redmine** - 自 建/自 建 自 建, 自 建 自 建
- **Taiga** - 自 建 自 建 自 建, 自 建 自 建
- **GanttProject** - 自 建 自 建 Gantt 自 建, 自 建
- Plane.so

OpenProject

Plane.so?

Plane.so                                        








- Notion of Linear $\square \square \square \square$
- $\square \square \square \square \square \square \square \square$
- $\square \square \square \square / \square \square \square \square \square \square$

Plane.so UI

(Plane GitHub)



- 
- **GitHub**  <https://github.com/makeplane/plane>
-  <https://plane.so>
-  GitHub Discussions, Slack, Discord 



- Docker Compose

- `.env` SMTP, DB
- Postgres, Redis

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🔗 [GitHub Issues](#) 📄 11 + 📄 11

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SaaS

⚖️ Plane.so vs




Plane.so, SpEdMe-PMB

□□ □□□□ □□□□□! □□

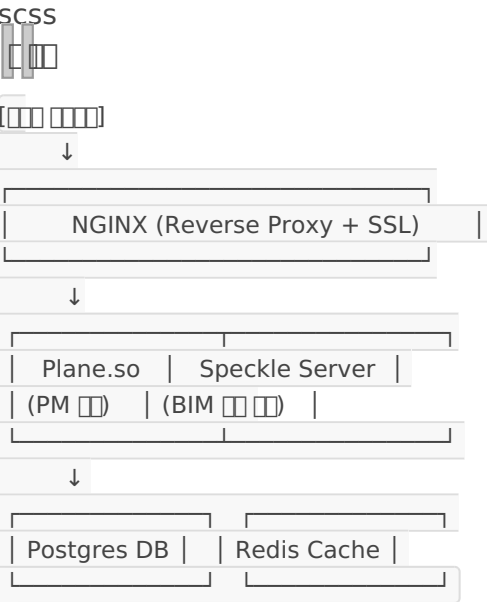
BIM + PM (Project Management) Stack

Tools and Services

Speckle = BIM Data/Cloud Sync
Plane.so = PM / CRM / ERP / HR
[Other Tools]

Cloud Services

Infrastructure (AWS/Azure)



Deployment (Docker/Kubernetes)

▶ 1️⃣ 如何 使用 / 嵌入 (iframe)

- Speckle 如何 获取 URL 呢:

```
arduino
  1 2 3
```

```
https://your-speckle-server/projects/1234
```

- Plane.so 的 Docs 如何 获取 呢:

```
markdown
  1 2 3
```

```
### 如何 获取
```

```
<iframe src="https://your-speckle-server/embed?stream=abcd" width="100%" height="600px"></iframe>
```

- 如何 获取 呢:

```
less
  1 2 3
```

```
https://your-speckle-server/projects/1234)
```

如何 获取: 如何, 如何, 如何

如何 获取: 如何 获取 如何 如何 如何

▶ 2️⃣ Speckle 如何 获取 如何 ID 如何

Speckle 的 issued 如何, Plane.so 如何 如何 如何 如何 如何.

如何:

```
json
  1 2 3
```

```
{
  "type": "wall",
  "issued": "PL-1234"
}
```

→ Plane 的 PL-1234 如何 如何 如何 如何!

如何 如何 如何 如何 Speckle 如何 如何 API 如何 如何 如何!



1. [📄 Speckle Server](#) [📄📄📄📄](#) [📄](#)
2. [📄 Plane.so](#) [📄](#) ([📄📄](#) [📄📄📄📄](#) [📄📄📄](#))
3. [📄 Nginx](#)[📄](#) [📄📄](#) [📄](#) + [HTTPS](#) [📄](#)
4. [📄 Speckle](#) [📄](#) [embed](#) [📄](#) [📄](#)
5. [📄 Plane Docs](#)[📄](#) [iframe](#) [📄📄](#)
6. [📄 API](#)[📄](#) [📄](#) [📄📄](#) [📄](#) [📄](#) ([📄📄](#))

[📄📄](#) [📄📄📄📄](#) [📄](#) [📄](#) [📄📄](#) [📄📄](#) ([📄📄](#))

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mathematica
■

[📄📄](#) [📄📄](#) [📄📄](#) ([1](#)[📄](#) [📄📄](#))

📄📄	📄📄	📄📄
📄 Plane.so	📄📄📄📄 📄📄	3000
📄 Speckle Server	BIM 📄 📄📄/📄📄	3001
📄📄 Nginx (📄📄)	📄📄📄📄 , HTTPS	80, 443
📄📄 Postgres	📄📄 📄📄📄📄📄📄	5432 (📄📄)
📄📄 Redis	📄📄	6379 (📄📄)

[📄📄](#) [📄📄](#):

- [📄📄 Bookstack](#)
- [📄📄 Nextcloud](#)
- [📄📄 Superset](#)
- [📄📄 Keycloak \(SSO\)](#)

📄 Docker Compose (docker-compose.yml)

```
version: "3.9"
```

```
services:
```

```
  postgres:
```

```
    image: postgres:15
```

```
    container_name: shared-postgres
```

```
    restart: always
```

```
    environment:
```

```
      POSTGRES_USER: plane
```

```
      POSTGRES_PASSWORD: plane123
```

```
      POSTGRES_DB: plane
```

```
  volumes:
```

```
    - pgdata:/var/lib/postgresql/data
```

```
  redis:
```

```
    image: redis:7
```

```
    container_name: shared-redis
```

```
    restart: always
```

```
  plane:
```

```
    image: makeplane/plane:latest
```

```
    container_name: plane
```

```
    depends_on:
```

```
      - postgres
```

```
      - redis
```

```
    ports:
```

```
      - "3000:3000"
```

```
    environment:
```

```
      DATABASE_URL: postgres://plane:plane123@postgres:5432/plane
```

```
      REDIS_URL: redis://redis:6379
```

```
      PORT: 3000
```

```
  speckle:
```

```
    image: speckle/speckle-server:latest
```



```
container_name: speckle

ports:
  - "3001:3000"

environment:
  SPECKLE_HOST_URL: http://localhost:3001
  POSTGRES_URL: postgres://plane:plane123@postgres:5432/speckle
  REDIS_URL: redis://redis:6379

depends_on:
  - postgres
  - redis

volumes:
  pgdata:
```



- **Postgres:** Plane Speckle DB (DB)
- **Redis:**
- **Plane:** PM
- **Speckle:** BIM
- **Docker 1**
- Nginx + HTTPS



```
#
mkdir bim-pm-platform && cd bim-pm-platform

# docker-compose.yml
nano docker-compose.yml

# ,
docker compose up -d
```



📦 📦 📦

📦	📦
Plane	http://📦IP:3000
Speckle	http://📦IP:3001

📦 📦 📦?

- 📦 .env 📦 📦 📦? → 📦📦📦 📦 📦!
- 📦 Bookstack/Nextcloud📦 📦📦? → 📦📦 📦 📦!
- 📦 Nginx + HTTPS 📦📦 📦📦 📦 📦!
- 📦 Plane Docs📦 Speckle iframe 📦 📦 📦📦? → 📦📦!

📦 📦 📦 📦📦 📦 📦!

📦 📦 .env 📦 init.sql , Nginx 📦, 📦 Bookstack 📦 📦📦 📦📦
"📦📦 📦?"📦📦 📦📦! 📦 📦📦 📦📦📦 📦