DIRECTIONS 4 PARTNERS

Create your own Azure DevOps web extension

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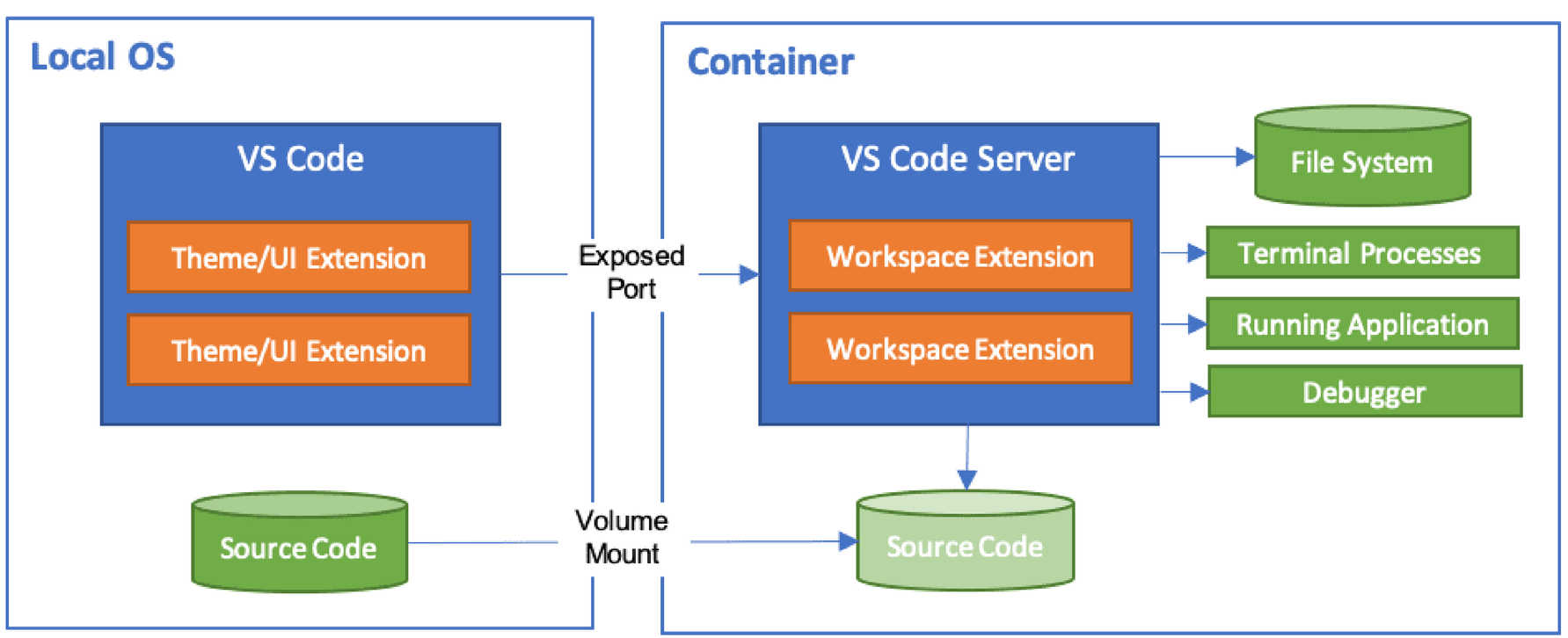
COSMO CONSULT

Business-Software for People

Prereq: VS Code dev container

What's that?

A mechanism to have easy to create, cleanly separated, standardized dev environments



Source: https://code.visualstudio.com/docs/remote/containers

Prereq: VS Code dev container

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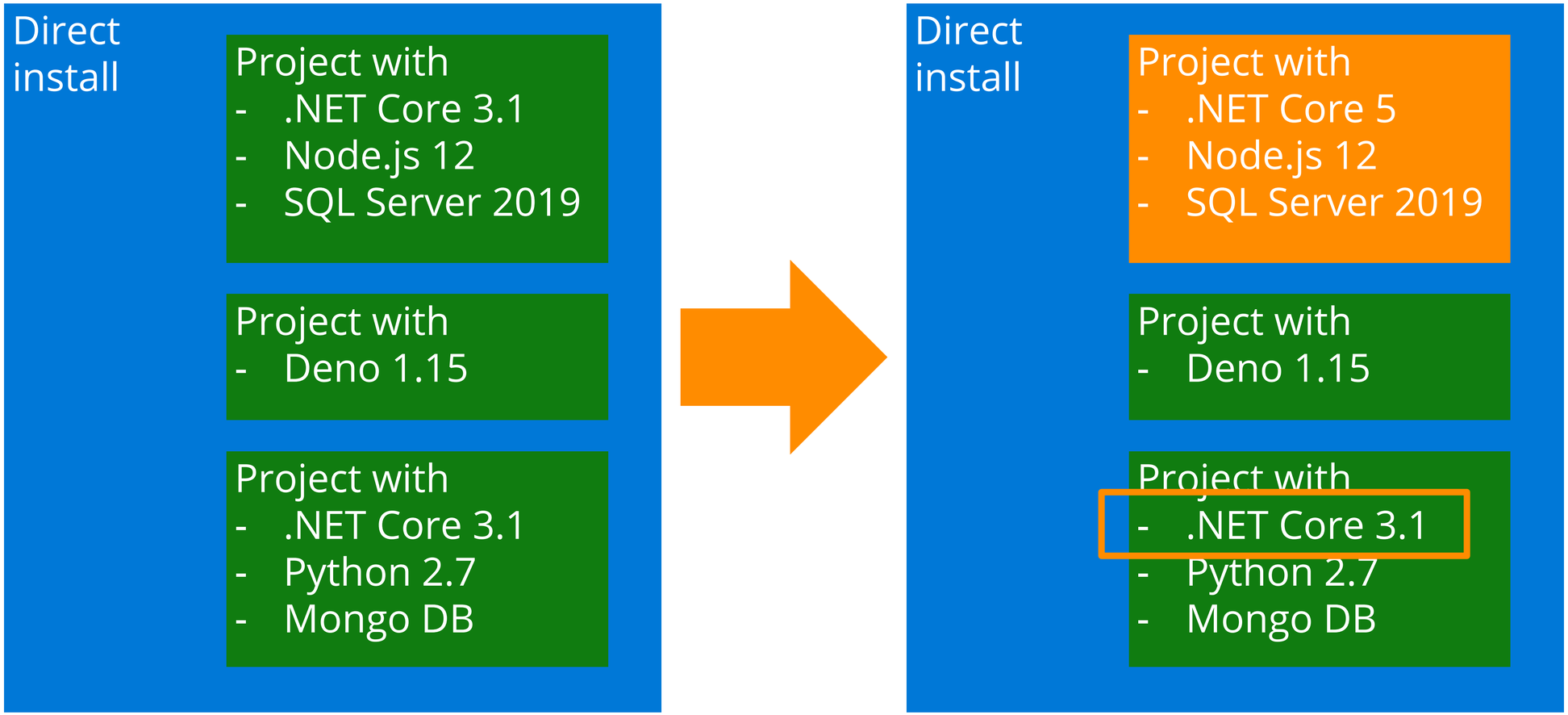

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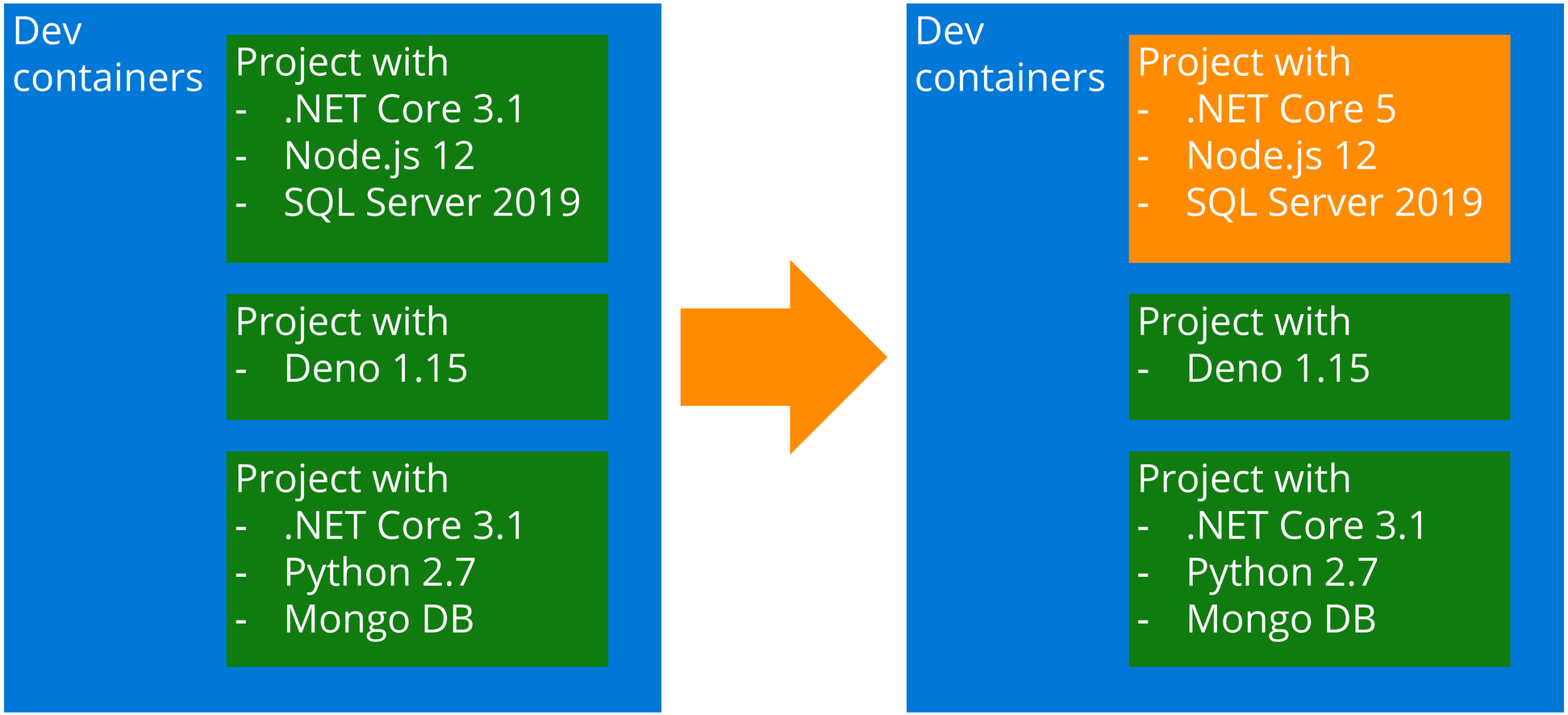

Prereq: VS Code dev container

What's that?

Configured through devcontainer.json

```
{
    "name": "C# (.NET)",
    "build": {
        "dockerfile": "Dockerfile",
        "args": {
            // Update 'VARIANT' to pick a .NET Core version: 2.1, 3.1, 5.0
            "VARIANT": "5.0",
            "INSTALL_NODE": "true",
            "NODE_VERSION": "12",
            "INSTALL_AZURE_CLI": "false"
        }
    },
    "extensions": [
        "ms-dotnettools.csharp",
        "eamodio.gitlens",
        "firefox-devtools.vscode-firefox-debug"
    ],
    ...
}
```

Prereq: VS Code dev container

What's that?

Set up through Dockerfile

```
ARG VARIANT="5.0"
FROM mcr.microsoft.com/vscode/devcontainers/dotnet:0-${VARIANT}

# [Option] Install Node.js
ARG INSTALL_NODE="true"
ARG NODE_VERSION="12"
RUN if [ "${INSTALL_NODE}" = "true" ]; then su vscode -c "umask 0002 && .
/usr/local/share/nvm/nvm.sh && nvm install ${NODE_VERSION} 2>&1"; fi

# [Option] Install Azure CLI
ARG INSTALL_AZURE_CLI="false"
COPY library-scripts/*.sh library-scripts/*.env /tmp/library-scripts/
RUN if [ "$INSTALL_AZURE_CLI" = "true" ]; then bash /tmp/library-scripts/azcli-debian.sh; fi \
    && apt-get clean -y && rm -rf /var/lib/apt/lists/* /tmp/library-scripts

# [Optional] Uncomment this section to install additional OS packages.
# RUN apt-get update && export DEBIAN_FRONTEND=noninteractive && apt-get -y install …

# [Optional] Uncomment this line to install global node packages.
RUN su vscode -c "source /usr/local/share/nvm/nvm.sh && npm install -g webpack webpack-cli tfx-
cli webpack-dev-server" 2>&1
```

Prereq: VS Code dev container

What's that?

- Needs Windows Subsystem for Linux (WSL2)
  - Very easy setup through Windows Store
  - Container management through Docker Desktop ("Switch to Linux containers")
- Needs VS Code "Remote – Containers" extension
  - Might as well install "Remote Development" extension pack including "Remote – SSH" (with Windows support) and "Remote – WSL"
- Run "Remote-containers: Clone repository in Container volume" action

Prereq: VS Code dev container

What's that?

Azure DevOps Web Extension

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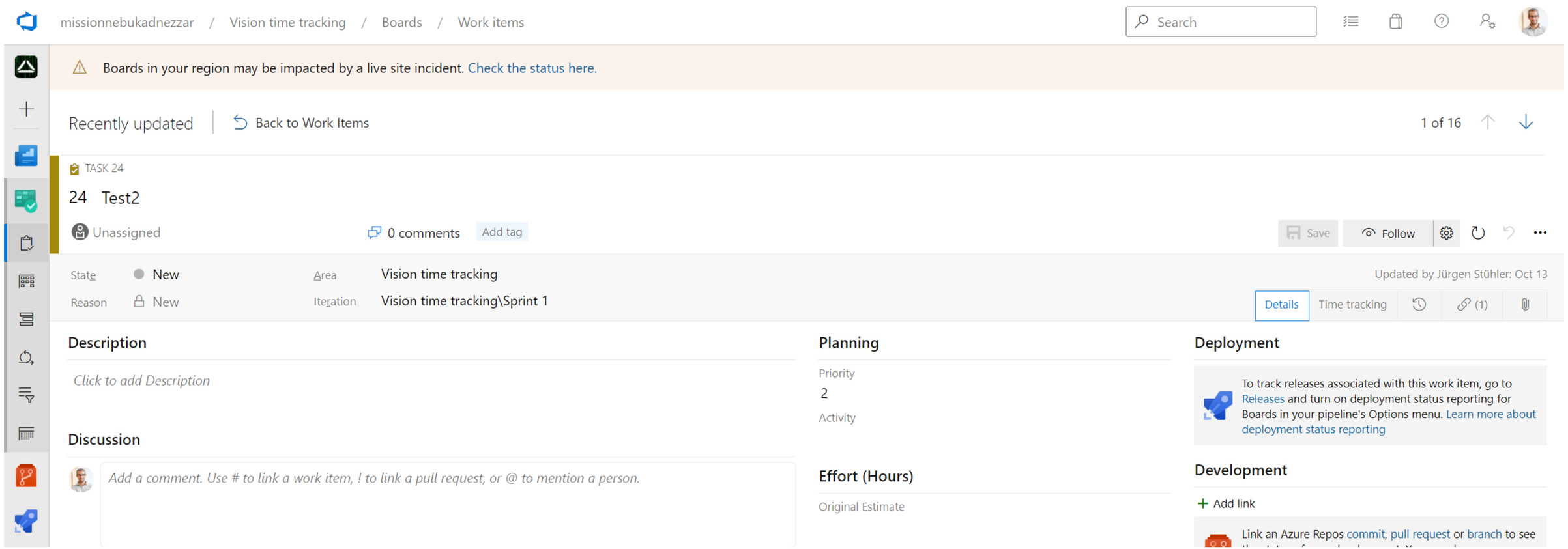

Azure DevOps Web Extension

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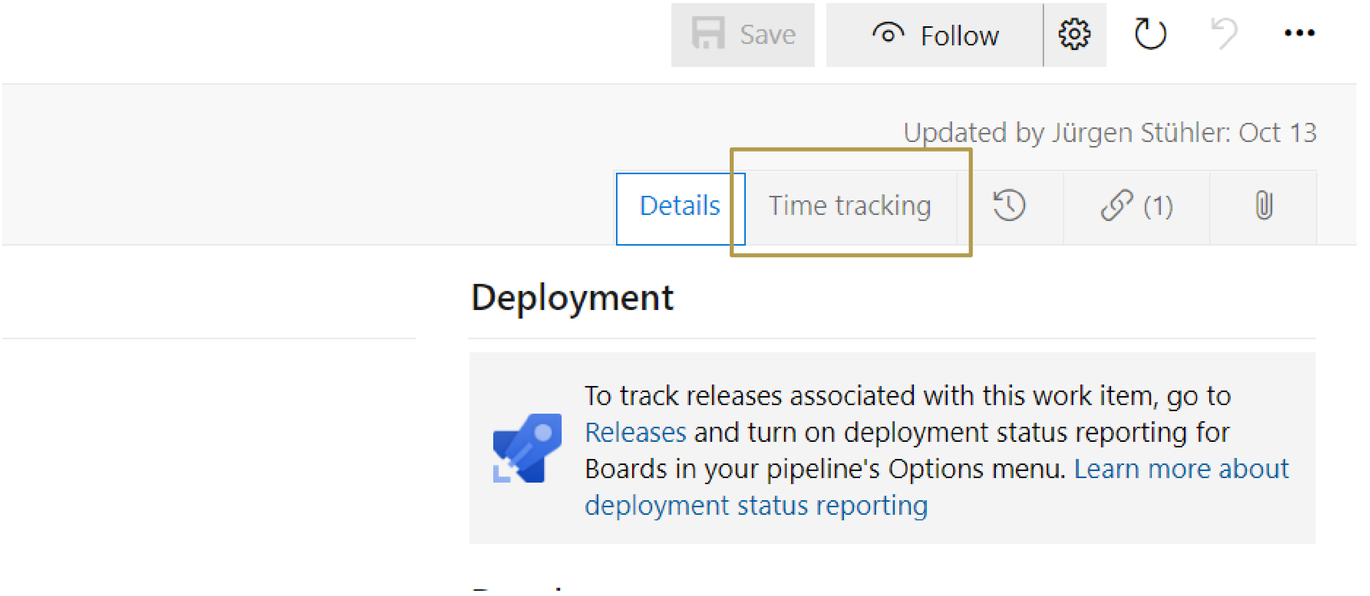

Azure DevOps Web Extension

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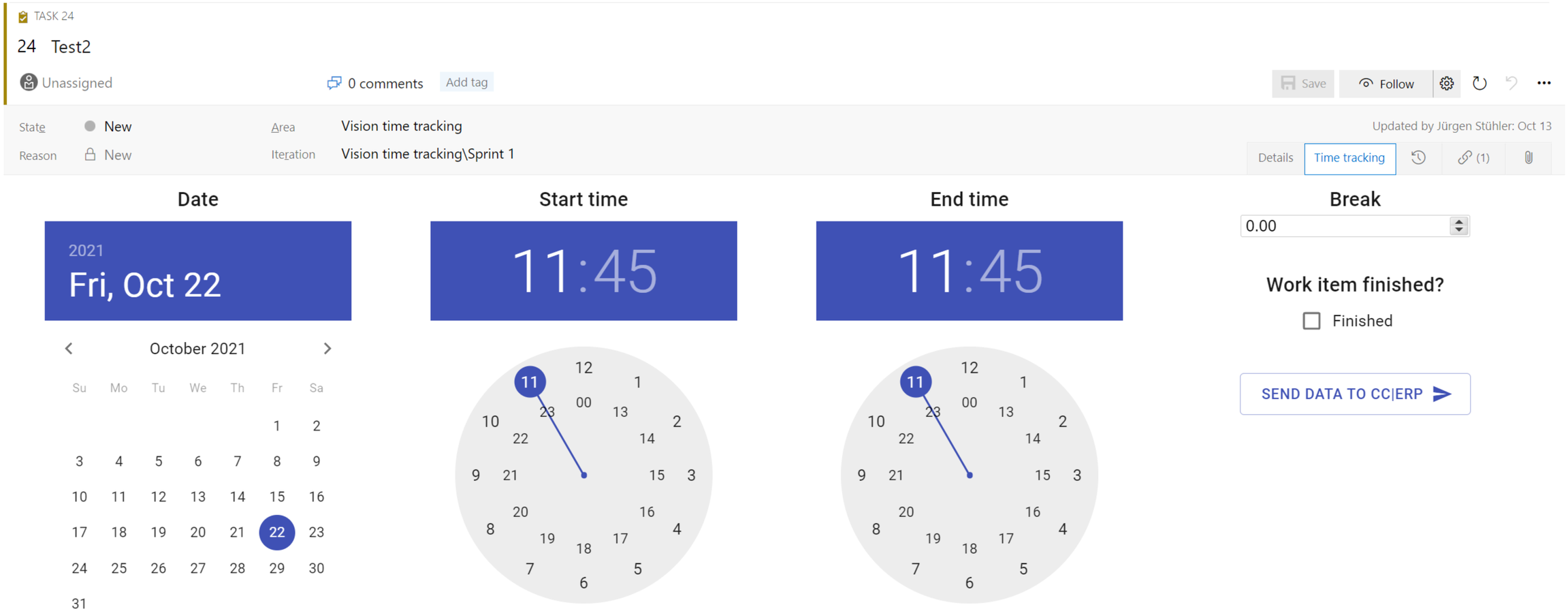


Azure DevOps Web Extension

How does it work?

Configured through manifest file vss-extension.json (1/3)

```
{
  "manifestVersion": 1,
  "id": "<put-your-publisher-here>-example-dev",
  "public": false,
  "baseUri": "https://localhost:3000",
  "version": "0.0.1",
  "name": "Dev Extension",
  "description": "Extension for development tests",
  "publisher": "<put-your-publisher-here>",
  "demands": [
    "api-version/3.0"
  ],
  "categories": [
    "Azure Boards"
  ],
  "targets": [
    {
      "id": "Microsoft.VisualStudio.Services"
    }
  ],
```

How does it work?

Configured through manifest file vss-extension.json (2/3)

```
"content": {
  "details": {
    "path": "README.md"
  }
},
"icons": {
  "default": "img/world.png"
},
"files": [
  {
    "path": "dist",
    "addressable": true
  },
  {
    "path": "img",
    "addressable": true
  }
],
```

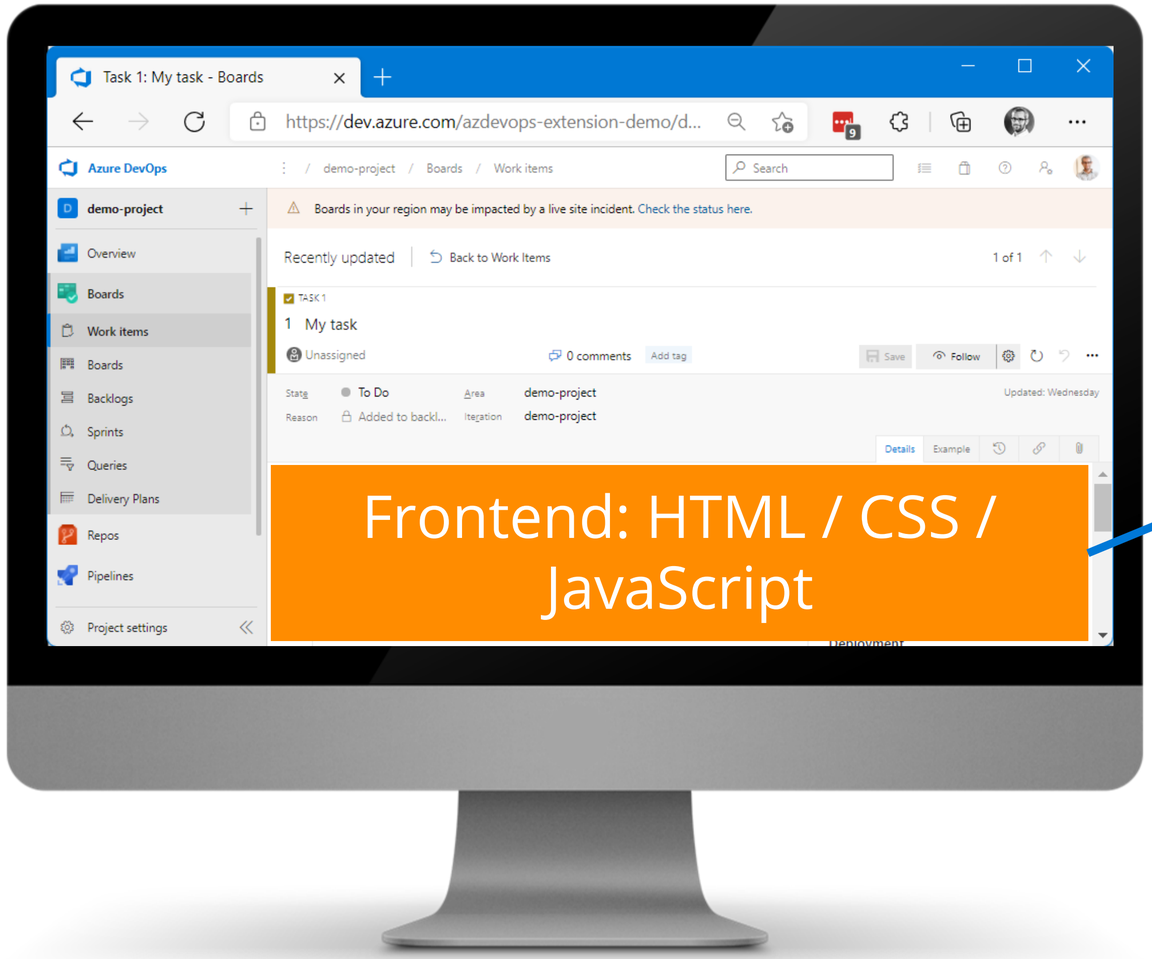
How does it work?

Configured through manifest file vss-extension.json (3/3)

```
  "contributions": [
    {
      "id": "example-work-item-form-page",
      "type": "ms.vss-work-web.work-item-form-page",
      "description": "Example page",
      "targets": [
        "ms.vss-work-web.work-item-form"
      ],
      "properties": {
        "name": "Example",
        "uri": "dist/example/example.html"
      }
    }
  ]
}
```

Azure DevOps Web Extension

How does it work?

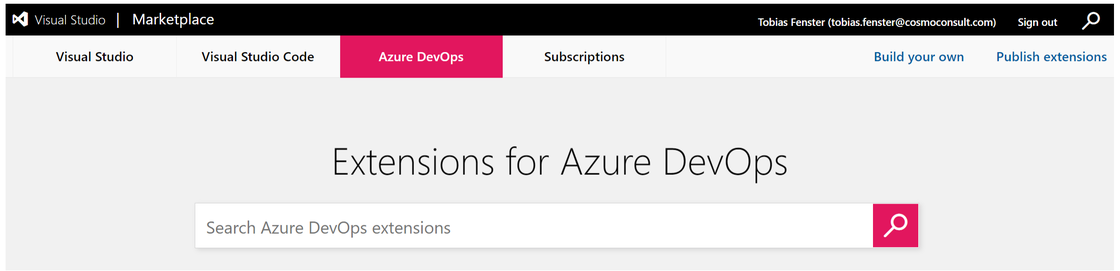


Backend: .NET Core Web API

Azure DevOps Web Extension

How does it work?

Build & Publish



Install

Extension (Manifest)

:3000

Backend: .NET Core Web API

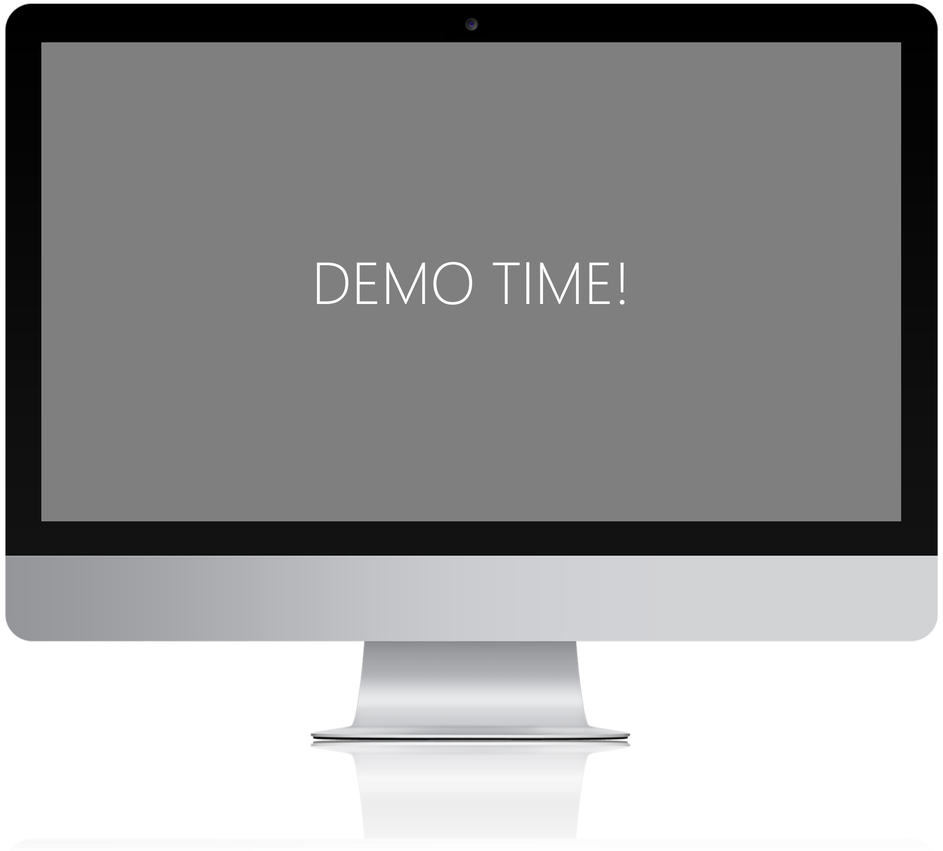
Dev Container

:5000

Frontend: HTML / CSS / JavaScript

Azure DevOps Web Extension

Let’s try!



Thanks for your attention

Any questions?

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