

Changing the Generated Angular Application

The compiler generates an Angular application for all Designer services, and deploys it as a part of the service repository. You can download the uncompiled Angular resources generated by the Designer, and use them as a starting point for Pro-Code application development. Once you have finished your modified Angular app, you can update your Designer project to use your code instead of the generated Angular code.

1. [Download the Angular resources.](#)
2. [Apply your changes.](#)
3. [Update your Designer service.](#)



Please note: The Designer does not recognize changed Angular apps and generates new Angular code. Once you have changed your process in the Designer, you need to merge your changes into the newly generated Angular code.



Expert Advice

Use Git to track your changes and for easy merging.

Prerequisites



Developing Pro-Code applications for the Scheer PAS platform assumes an intermediate-level knowledge of **HTML**, **CSS**, **JavaScript**, and the **Angular** framework. If you are completely new to frontend development, we recommend to comprehend some fundamentals before continuing with Pro-Code development.



Useful tutorials are:

- [Web Development Basics](#)
- [Angular](#)

Tool Recommendations

You can use different tools for Pro-Code development. Our PAS developers recommend the following:

| Name | Description | Further Information |
|---------------------------|--|---|
| Angular | As you will start with Angular development, you need to install Angular and its dependencies. | <ul style="list-style-type: none">• Angular Homepage• Angular Setup Guide |
| Visual Studio Code | Our developers recommend Visual Studio Code as a development environment. | <ul style="list-style-type: none">• Visual Studio Code Homepage• Visual Studio Code Documentation |
| Git | To version your project, we recommend to use Git . | <ul style="list-style-type: none">• Git Homepage• Git Documentation• git - the simple guide |

Downloading the Angular Resources

Download the uncompiled Angular resources that have been generated by the Designer, and use them as a starting point for Pro-Code application development. To get these resources, do the following:

On this Page:

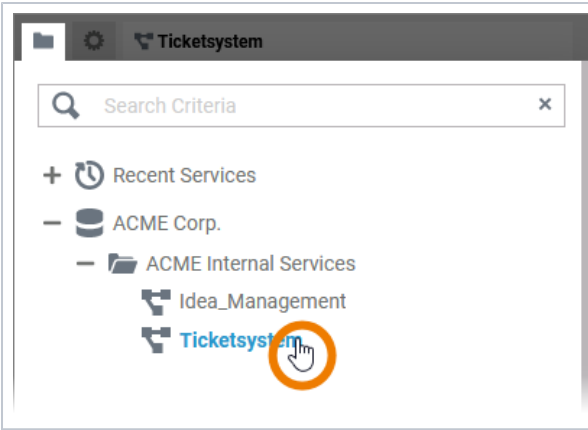

- [Prerequisites](#)
 - [Tool Recommendations](#)
- [Downloading the Angular Resources](#)
- [Applying Changes](#)
- [Updating the Service](#)

Related Pages:

- [Technical Concepts](#)
 - [Form Communication](#)
- [PAS Designer User Guide](#)
 - [Controls Panel](#)
 - [Modeling Forms](#)

Related Documentation:

- [Administration Guide](#)
 - [Working With the Deployment Wizard](#)
- [Integration Platform User's Guide](#)
 - [Deployment of xUML Services](#)

| | |
|--|---|
|  | <p>Open your service in the PAS Designer.</p> |
|  | |

Go to the **C**
ontrols
panel, open
the menu
and select
option **Appli**
cation from
section **Exp**
ort > Pro-
Code to
download
the project
resources.

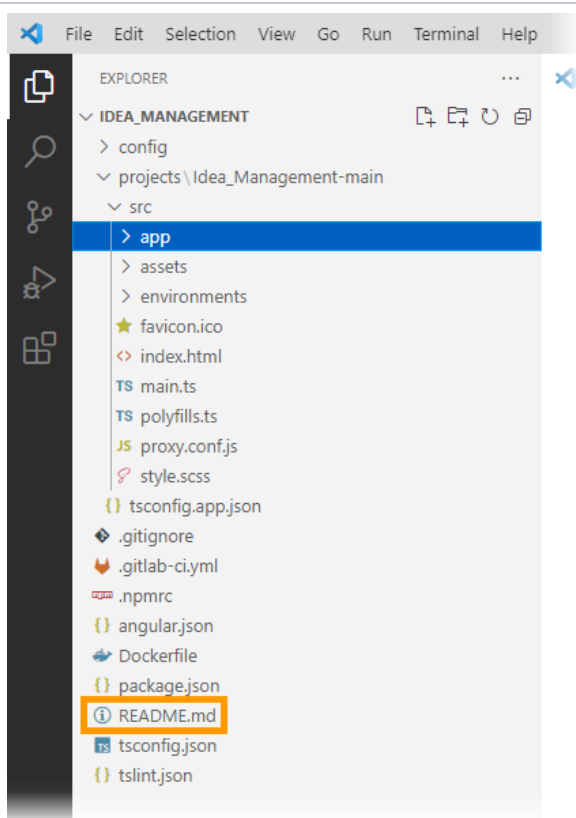


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The
Angular
app project
is then
downloaded
as a ZIP file.

Applying Changes

Now, extract the zipped resources to a folder, and open the folder as an Angular project in your favorite IDE, for example [Visual Studio Code](#).



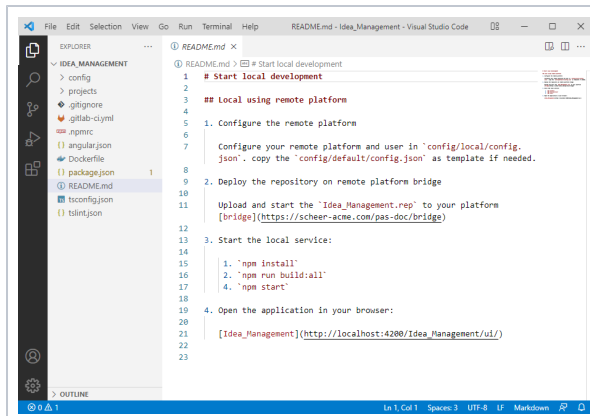
Expand the **projects** folder to see the libraries and the main angular project that was generated for the pas-designer-service.

The project contains the following different library types:

| File /Folder | Description |
|------------------------------|---|
| src/app/main.ts | Contains the executable Angular application code. This is the application entry point of the main application. |
| src/app/forms | Contains the Angular application code for forms, one file for each form. |
| src/app/process | Contains the Angular application code for the BPMN processes, one subfolder for each process. |
| src/app/process/<name>/tasks | Contains the Angular application code for the user tasks that have been defined to the Designer process, one subfolder for each task. |



A good starting point to get familiar with the project is the file **README.md**. You can find it in the root directory of the project.



The **README.md** file describes how to configure the local project so that you can use it in combination with your **Scheer PAS** system.



The **@pas** modules are provided by our internal registry and are available for the generated applications.

Once you have your changes applied, you can build and start the Angular application using the following command:

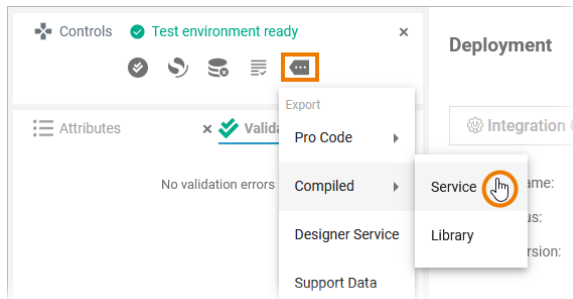
```
npm run start:procode
```

Updating the Service

Once you have applied your changes to the Angular applications, you can merge the changed application back into the xUML service, and deploy the service to the integration component (Bridge) of the PAS platform.

When you build the application as described above, a **dist** directory is compiled to the project folder. This folder needs to be copied into the xUML service repository.

1. Switch to the Designer and export the repository of the Designer service. To do so, select option **Service** from menu section **Export > Compiled** of the **Controls** panel.



2. Unzip the exported repository.
3. The repository contains a folder **htdocs**. Replace the contents of this folder with the contents of the **dist** folder of your Angular project.
4. Zip the repository back to its old name.
5. Click **Open Administration** (gear icon) from the **Deployment Controls** to switch to the management UI of your deployment target where you can deploy the service repository:
 - a. **Container deployment:** How to deploy a containerized xUML service is described on [Working With the Deployment Wizard](#).
 - b. **Integration (Bridge) deployment:** How to deploy an xUML service is described on [Deployment of xUML Services](#).
 - c. **Local deployment:** You can also deploy the service locally using

```
npm run build:all
```