Structure of program

\_ cases

| |\_ \*

|

|\_ css

|\_ js

| |\_ core

| |\_ misc

|

|\_ resources

|

|\_ index.html

index.html: main file, access to all cases included. Simple webpage with lateral panel displaying all cases implemented; and an iframe where the case is loaded.

Cases: each case analyzed and implemented in the program is developed independently, so each one has a common structure in an independent subfolder. The subfolder structure is mainly

- caseName

|\_ includes

|\_ caseName.htm

caseName.htm corresponds to the webpage loaded into the iframe in the main html file, which include the references to the necessary javascript files.

Includes contains all the javascript files relevant to the particular case, such as results, nodal positions and other functions that are used only locally.

Css: folder containing css style files used in the webpages.

Js: folder containing common javascript files to all pages and cases. Divided into two subfolders:

* Core: include the core libraries needed for the program to run (i.e., THREE library, jQuery, dat.GUI).
* Misc: includes common functions to be used in different cases, such as linear algebra, common animation functions and others.

Resources: folder with extra resources for the webpage such as icons, images and fonts.

Common structure of caseNames

<!DOCTYPE html>

<html lang="en">

<head>

<title>Static problem PGD output</title>

<meta charset="utf-8">

<meta name="viewport" content="width=device-width, user-scalable=no, minimum-scale=1.0, maximum-scale=1.0">

<link rel="stylesheet" href="../../css/typicalStyle.css">

</head>

<body>

<div id="render"></div>

<script type="text/javascript" src="../../js/core/three.js"> </script>

<script type="text/javascript" src="../../js/core/CanvasRenderer.js"></script>

<script type="text/javascript" src="../../js/core/OrbitControls.js"> </script>

<script type="text/javascript" src="../../js/core/Projector.js"> </script>

<script type="text/javascript" src="../../js/core/dat.gui.min.js"> </script>

<script type="text/javascript" src="../../js/misc/events.js"></script>

<script type="text/javascript" src="../../js/misc/utils.js"> </script>

<script type="text/javascript" src="../../js/misc/anim.js"> </script>

<script type="text/javascript" src="includes/malla.js"> </script>

<script type="text/javascript" src="includes/stats.js"> </script>

<script type="text/javascript" src="includes/2ddefs.js"></script>

</body>

</html>

In the header the title, charset and CSS style are added following the folder structure.

In the body of the file, a div is added with the render name, which is the space that will hold the graphical part computed later. Id must be “render”, since the javascript file is coded using that id. Following the div, all the javascript files needed for the rendering to work are added. Even though is not necessary, they are added with a certain hierarchy:

* First, core files are added since they load the main libraries to use.
* Second, misc files are added since this are common files that are ommited locally.
* Lastly, local files are added. The last one to be added should be the caseName.js file, which is the main function to be executed.

All htm files (with the exception of index.html) follow this particular structure. Files can be written by hand or can be generated automatically using json files and php or node.js (to be implemented).