

Introduction.

Icarus IDE is integrated development environment for reservoir simulation. It understands Eclipse dataset syntax and thinks of it as a programming language. It here to help you:

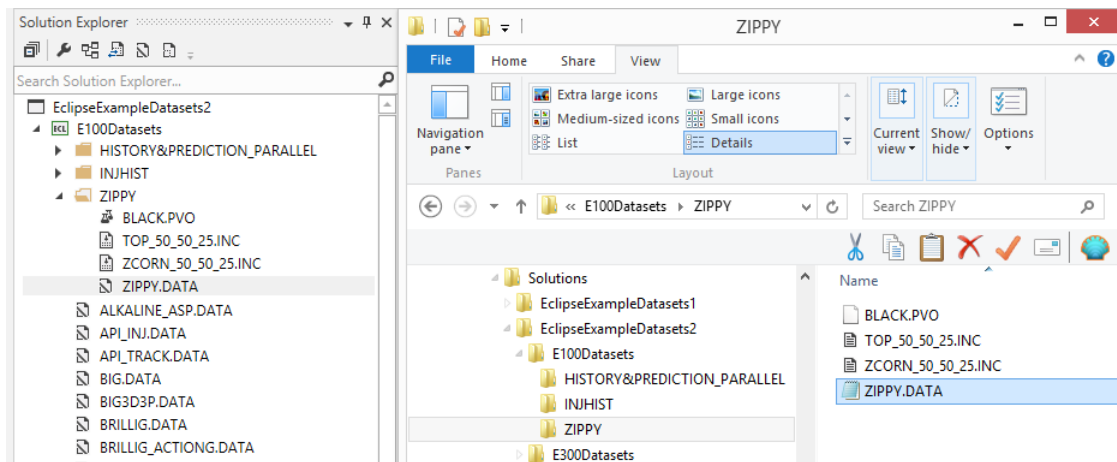
- Keep your study organized
- Quickly navigate within both folder based solution and datasets
- Get instant documentation on keywords
- Give you warnings as you type
- Launch simulator in one click
- Create a simulation queue and run it in batch process.

Demo workflow.

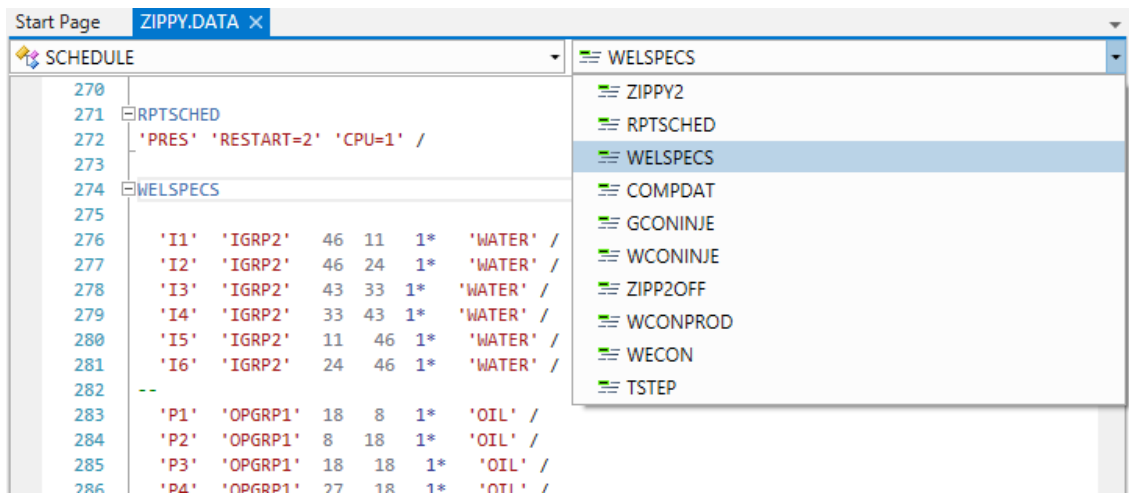
Please follow through this tour to get an application overview. Before we start, check some settings. Icarus will try to auto detect necessary files (eclipse.exe and pdf manuals) and green ticks from "Check List" indicate that everything is OK.

1. Click New Solution..., then choose Eclipse Example Datasets Solution, specify a location, give it a name and click OK. You have the solution with two projects. Drill down on [Solution Explore](#) to see the file structure. From context menu (right click) on Solution node in file tree, choose *Open containing folder*.

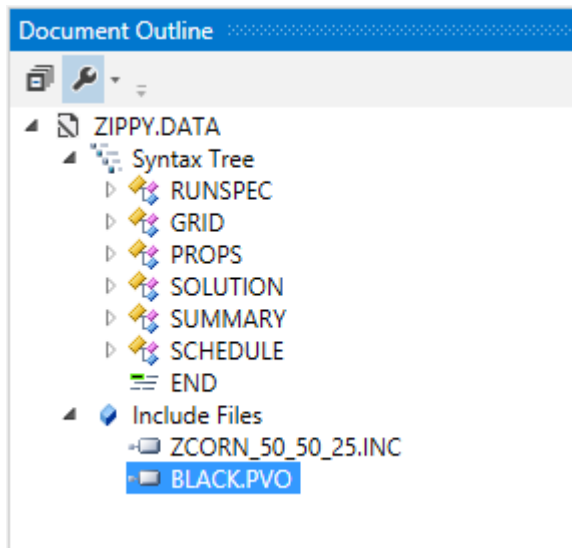
Note the file structure mimic solution structure.



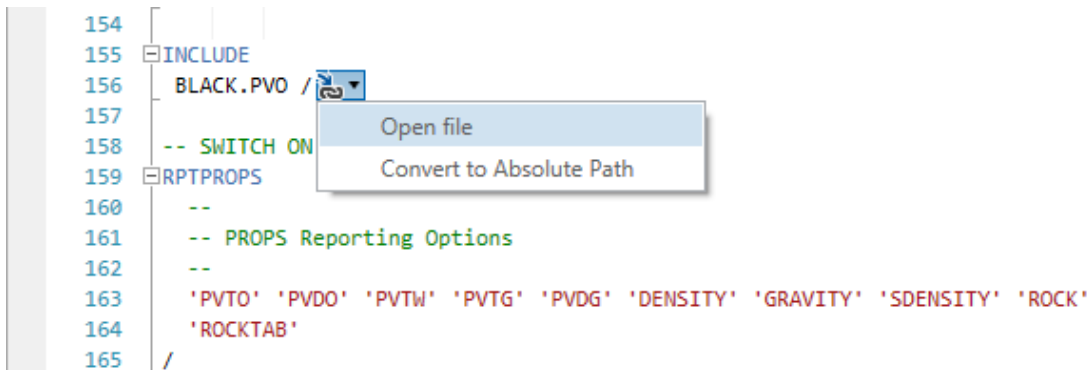
2. Search ZIPPY.DATA in [Solution Explore](#) and double click on the node it to open. Note the dataset sections and keywords are collapsible. There is navigation symbols on the editor's top to jump to chosen section and keywords.



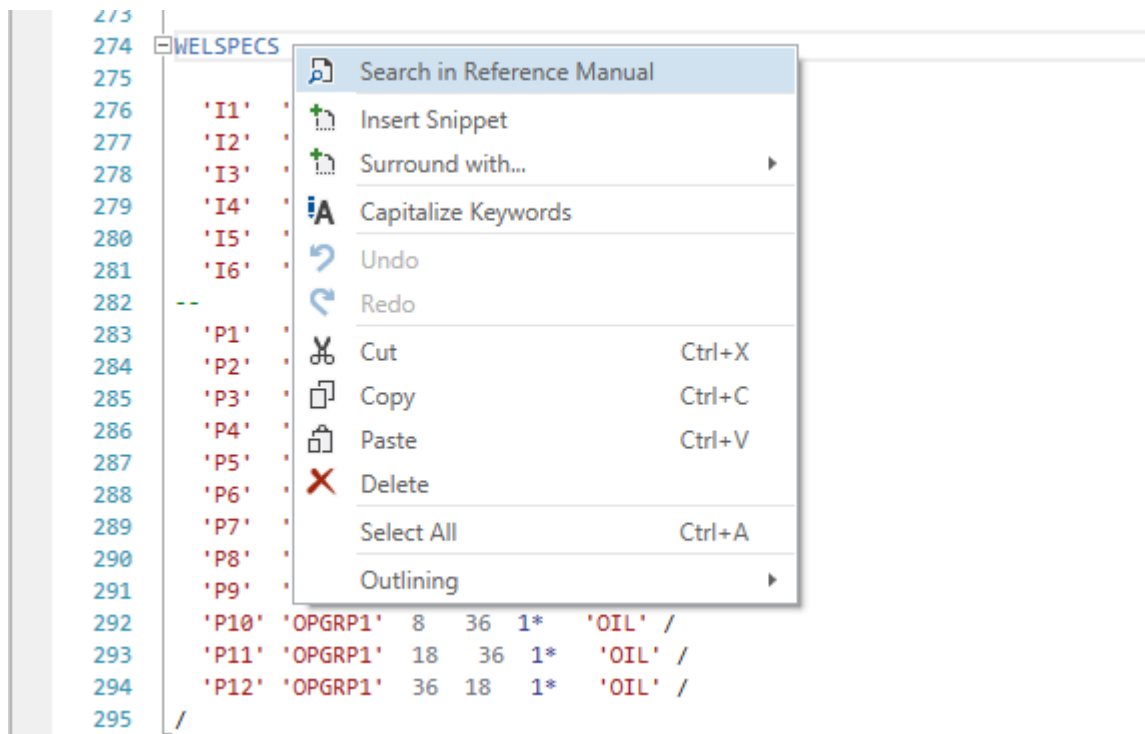
3. **Document outline** tool is another way to navigate through dataset. In addition, you can see the list on INCLUDE files.



4. Double click on one of them (.PVO for example); it will move cursor to keyword location within the document. Notice little adornment nearby, click on it and choose *Open file*.



5. Have a look at **Reference Manual** tool. Right click on any keyword and choose Search in Reference Manual. This should open reference manual on the page with keyword description.



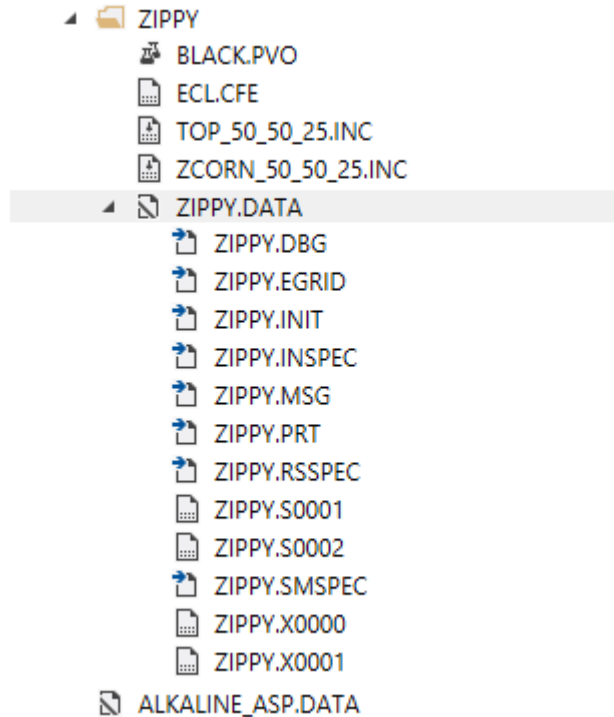
- Open one more .data file and click Start button from menu – it launches simulation and activate. **Simulation Queue Manager**. It will keep run history for the current session.

Simulation Queue Manager										
History Queue										
Dataset	Duration	State								
ZIPPY.DATA	0:00:34	Processing								
STEP 9	TIME= 9.19	DAYS (+1.4	DAYS TRNC 4	ITS) (10-JAN-1982)	PAV= 3289.4	PSIA	WCT=0.000	GOR= 2.34	MSCF/STB WGR= 0.0000	STB/MSCF
STEP 10	TIME= 10.80	DAYS (+1.6	DAYS TRNC 5	ITS) (11-JAN-1982)	PAV= 3289.6	PSIA	WCT=0.000	GOR= 2.33	MSCF/STB WGR= 0.0000	STB/MSCF
STEP 11	TIME= 12.42	DAYS (+1.6	DAYS TRNC 5	ITS) (13-JAN-1982)	PAV= 3289.7	PSIA	WCT=0.000	GOR= 2.32	MSCF/STB WGR= 0.0000	STB/MSCF
STEP 12	TIME= 14.10	DAYS (+1.7	DAYS TRNC 5	ITS) (15-JAN-1982)	PAV= 3289.7	PSIA	WCT=0.000	GOR= 2.31	MSCF/STB WGR= 0.0000	STB/MSCF
STEP 13	TIME= 15.86	DAYS (+1.8	DAYS TRNC 5	ITS) (16-JAN-1982)	PAV= 3289.7	PSIA	WCT=0.000	GOR= 2.30	MSCF/STB WGR= 0.0000	STB/MSCF
STEP 14	TIME= 17.73	DAYS (+1.9	DAYS TRNC 5	ITS) (18-JAN-1982)	PAV= 3289.6	PSIA	WCT=0.000	GOR= 2.29	MSCF/STB WGR= 0.0000	STB/MSCF
STEP 15	TIME= 19.70	DAYS (+2.0	DAYS TRNC 5	ITS) (20-JAN-1982)	PAV= 3289.4	PSIA	WCT=0.000	GOR= 2.28	MSCF/STB WGR= 0.0000	STB/MSCF
STEP 16	TIME= 21.75	DAYS (+2.1	DAYS TRNC 5	ITS) (22-JAN-1982)	PAV= 3289.2	PSIA	WCT=0.000	GOR= 2.27	MSCF/STB WGR= 0.0000	STB/MSCF
STEP 17	TIME= 23.84	DAYS (+2.1	DAYS TRNC 5	ITS) (24-JAN-1982)	PAV= 3289.0	PSIA	WCT=0.000	GOR= 2.26	MSCF/STB WGR= 0.0000	STB/MSCF
STEP 18	TIME= 26.00	DAYS (+2.2	DAYS TRNC 5	ITS) (27-JAN-1982)	PAV= 3288.7	PSIA	WCT=0.000	GOR= 2.26	MSCF/STB WGR= 0.0000	STB/MSCF

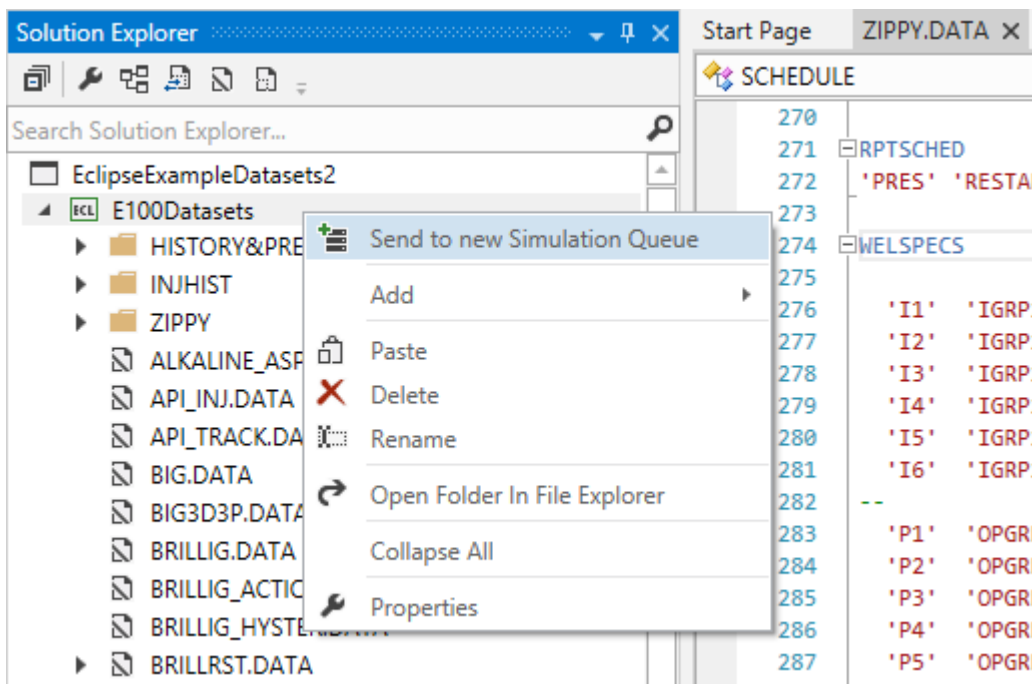
You can also stop it from from toolbar (small black square button).



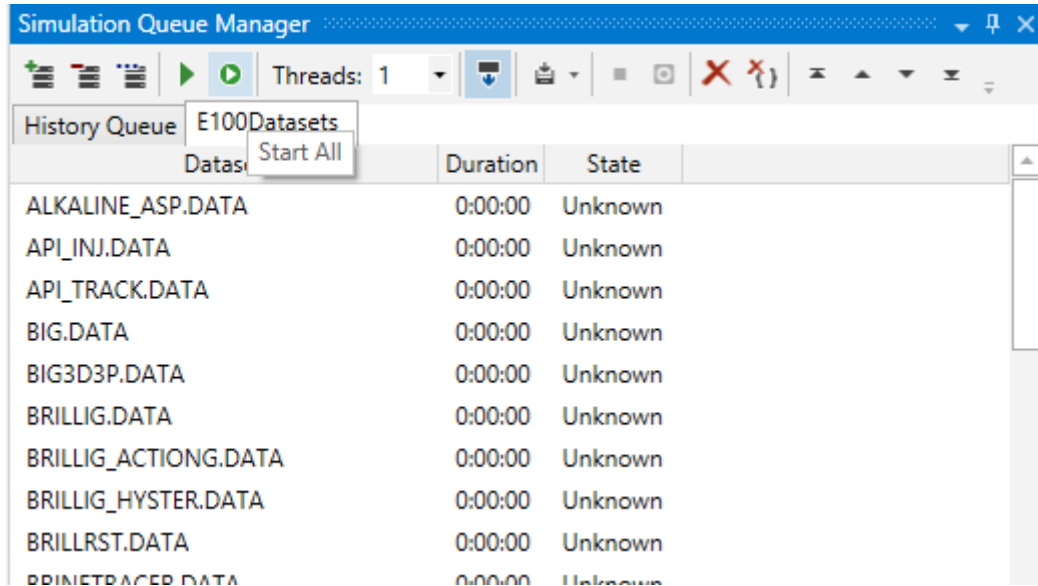
Note that [Solution Explore](#) combines output files under the node to keep the view less cluttered.



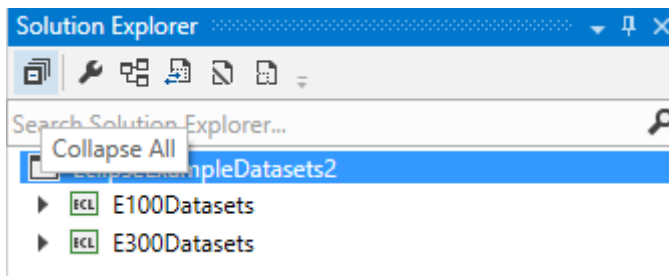
7. Right click on project node in the Solution Explore and select *Send to new Simulation Queue* from context menu – now you have a queue with every .data file in the project.



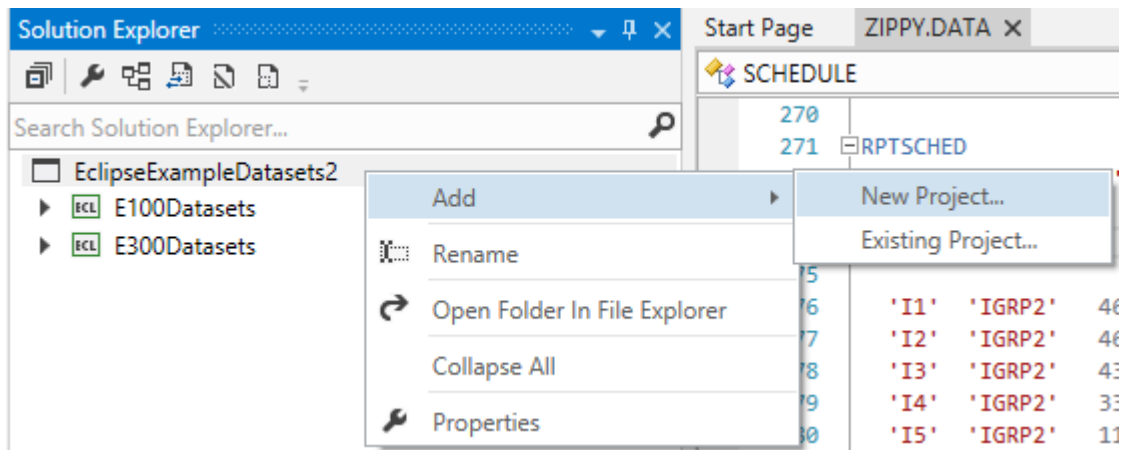
On toolbar menu, a button Start All will launch a batch run process, but it would take some time.



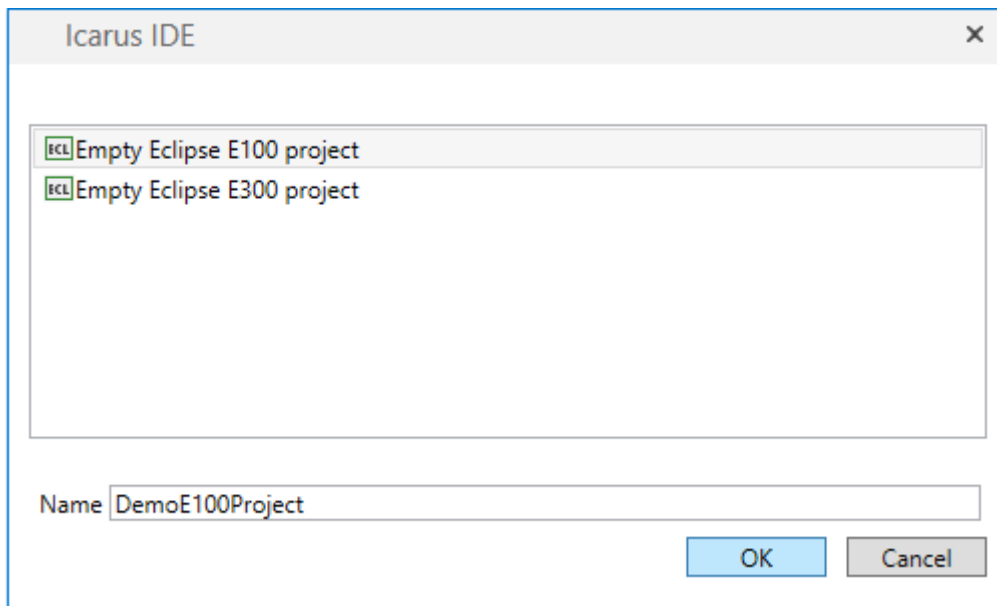
8. Collapse solution tree to see what we have in solution.



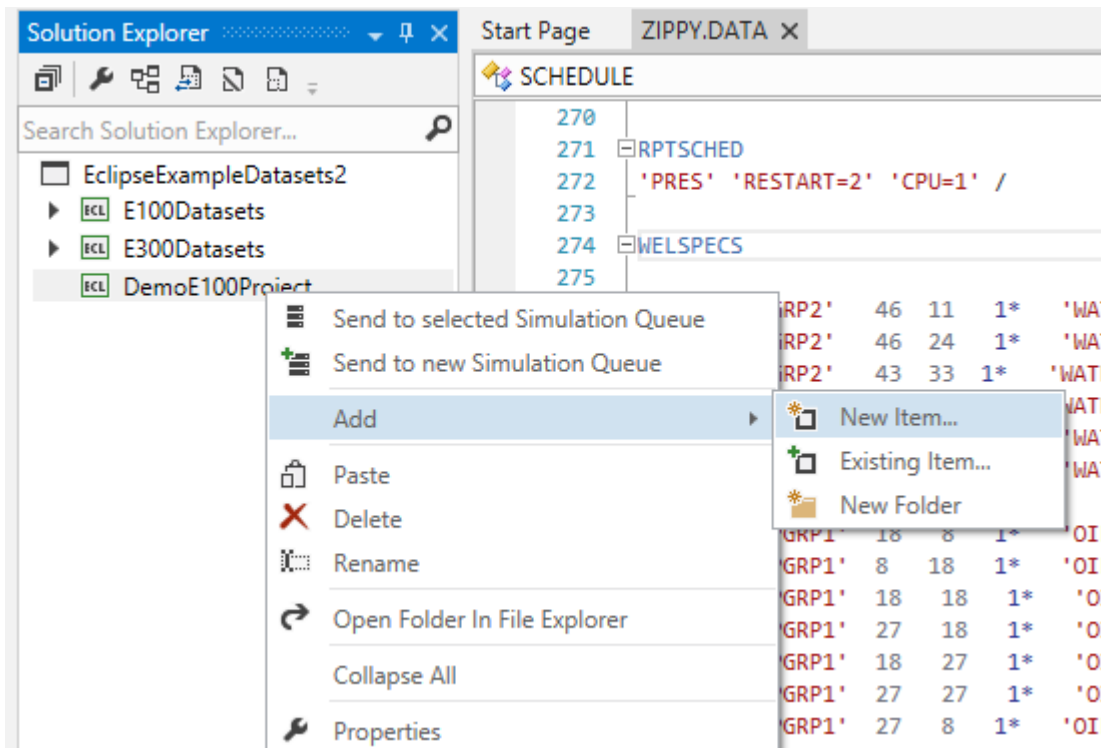
To add a new project to the solution, right click on solution node and select Add -> New Project from context menu.



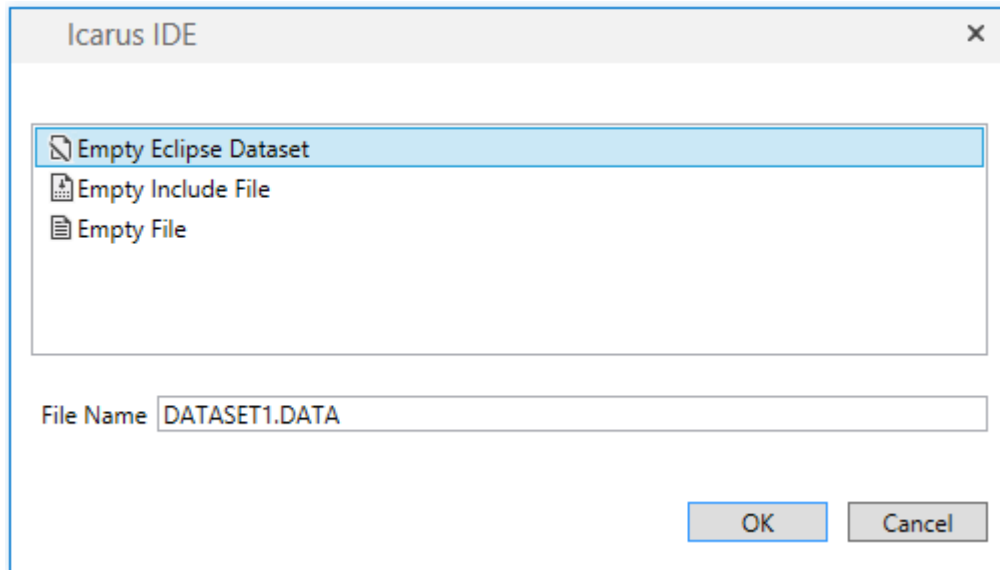
Choose *Empty Eclipse E100 project*, give it a name and click OK button.



Right click on newly created empty project, Add -> New Item...



Select Empty Eclipse Dataset, give it a name, and click OK.



That it. You should get the idea on how to create your solution with projects and datasets, navigate between tools ad editor and launch simulator.

Future plans

Result plots and project summaries, multiple dataset generation tool, new project and templates, just to name a few.

Your feedback is highly appreciated and will help us move forward. Please report any bugs or suggest an idea for improvement at [here](#).