Supplementary material

Median and Interquartile Range tables

Among the statistical information generates by jMetal are tables with the median and Interquartile Range (IQR). In these tables, the central and subscript numbers correspond to the values of median and IQR, respectively. The best and second-best values were colored with dark and light gray, respectively. Tables 1, 2 and 3 show the Spread, Epsilon and Hypervolume quality indicator values, respectively.

Table S1. SPREAD. Median and Interquartile Range

	NSGA-II	**SPEA2**	**SMPSO**
Vanzyl	1.19e+00$_{1.7e-01}$	1.32e+00$_{1.4e-01}$	8.01e-01$_{9.7e-02}$
Baghmalek	1.33e+00$_{3.2e-01}$	1.40e+00$_{2.0e-01}$	9.11e-01$_{8.0e-02}$
Anytown	1.26e+00$_{1.5e-01}$	1.30e+00$_{6.1e-02}$	7.74e-01$_{1.0e-01}$

Table S2. Epsilon. Median and Interquartile Range

	NSGA-II	**SPEA2**	**SMPSO**
Vanzyl	1.01e+00$_{6.1e-01}$	7.80e-01$_{4.2e-01}$	9.48e-01$_{2.2e-01}$
Baghmalek	5.38e-01$_{2.9e-01}$	3.94e-01$_{1.4e-01}$	8.97e+00$_{3.1e+00}$
Anytown	5.00e-01$_{2.2e-01}$	4.00e-01$_{2.0e-01}$	8.00e-01$_{3.6e-01}$

Table S3. Hypervolume. Median and Interquartile Range

	NSGA-II	**SPEA2**	**SMPSO**
Vanzyl	0.00e+00$_{1.6e-02}$	1.18e-03$_{7.1e-02}$	0.00e+00$_{0.0e+00}$
Baghmalek	2.68e-01$_{2.1e-01}$	4.26e-01$_{2.0e-01}$	0.00e+00$_{0.0e+00}$
Anytown	4.44e-01$_{1.6e-01}$	5.57e-01$_{1.8e-01}$	7.66e-02$_{1.4e-01}$

EpaJava

The following instructions will allow you to obtain a copy of the EpaJava in an operational way for development and testing purposes. These are also available on https://github.com/jhawanet/epajava

Requirements

- Windows 10
- JDK Java 8
- *Eclipse* IDE

Project Download:

1. Download the EpaJava as a ZIP file from the github link https://github.com/jhawanet/epajava, as shown in figure 1.

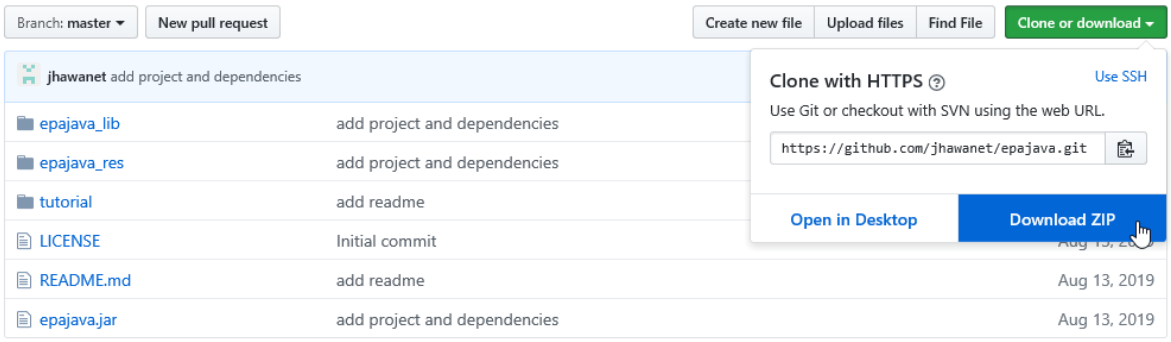

Figure S1. Download the EpaJava from *github* as a ZIP file

2. Unzip the file to access its content, following the steps indicated in figures 2 and 3.

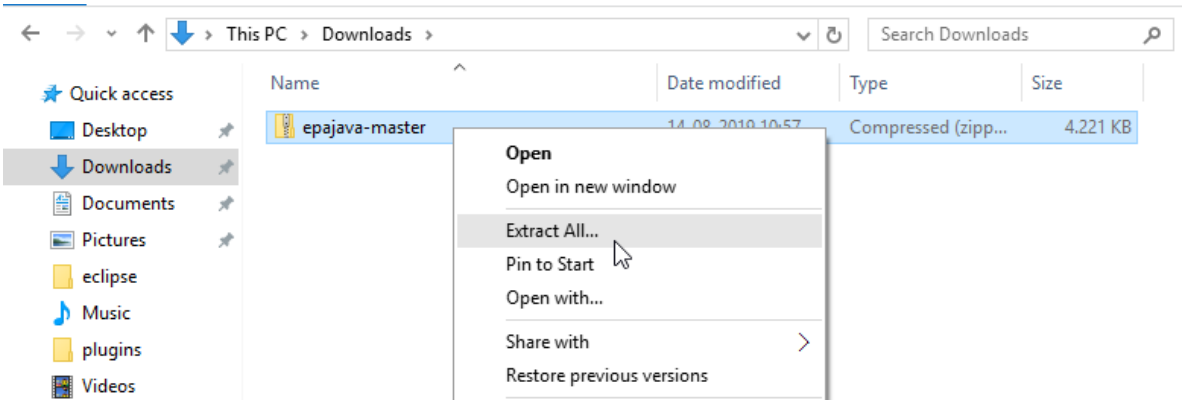

Figure S2. Unzip the downloaded file step 1

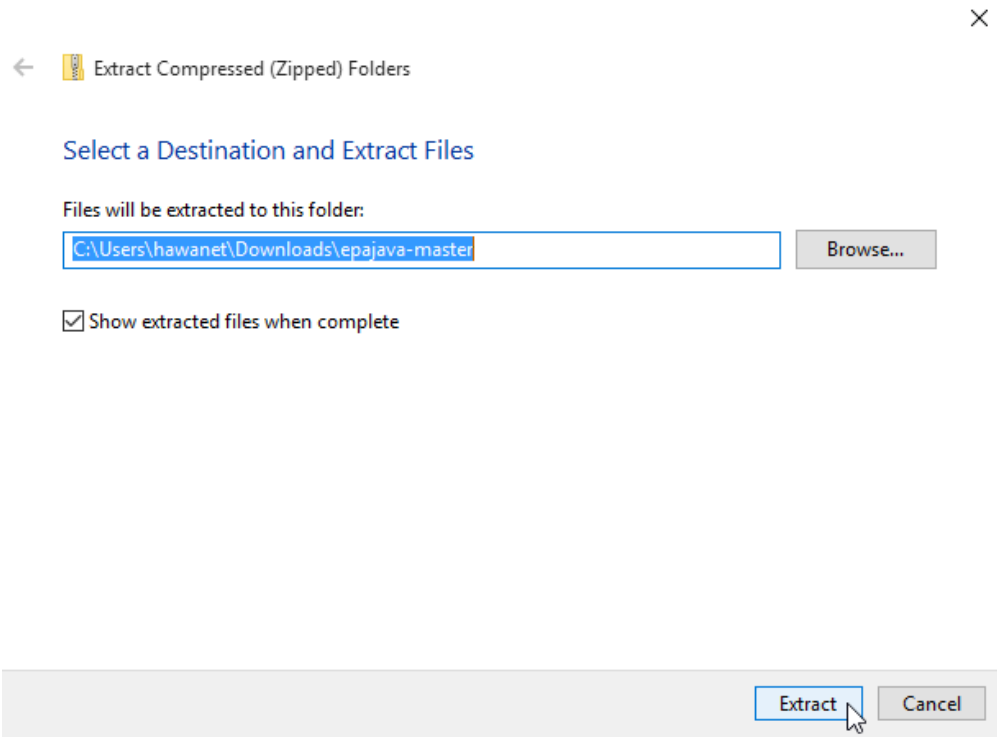

Figure S3. Unzip the downloaded file step 2

Integration to a Java Project in Eclipse:

3. Create a new Java Project, as seen in figures 4 and 5:

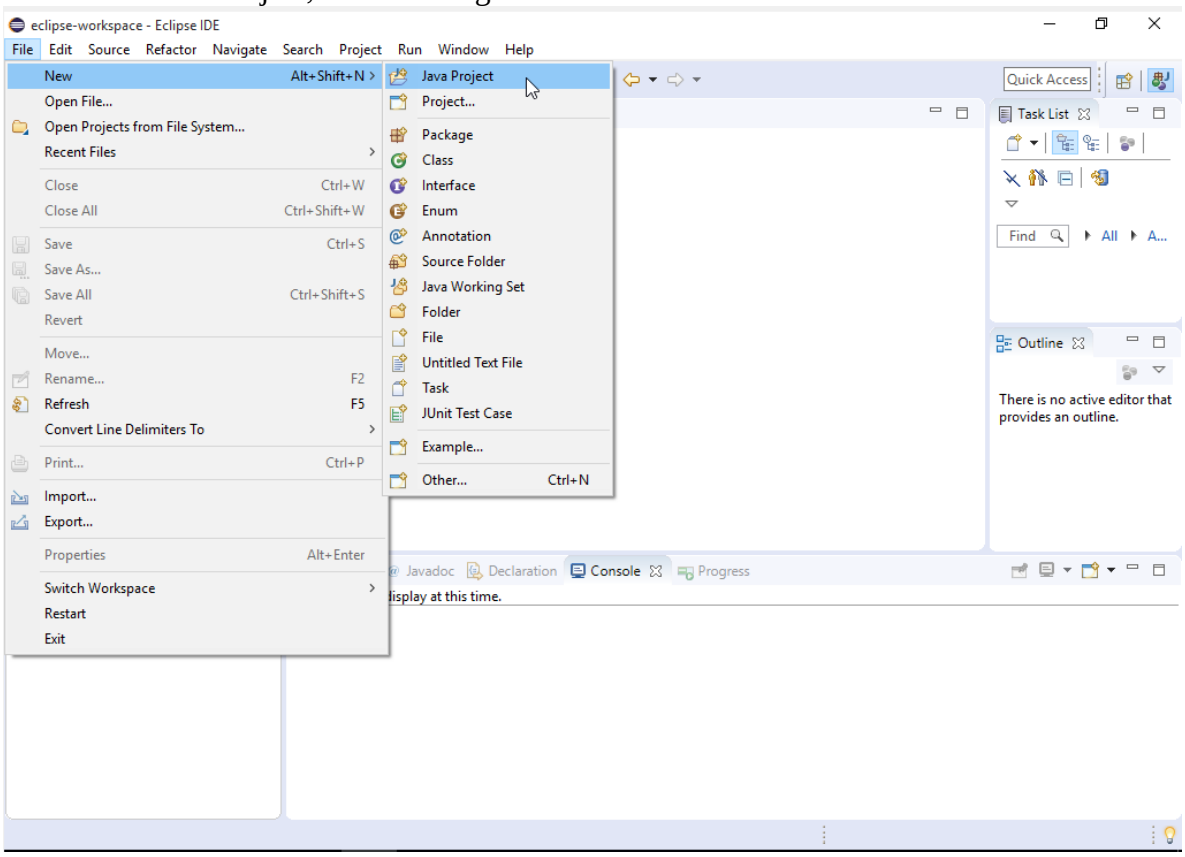

Figure S4. Create a new Java Project in Eclipse, step 1

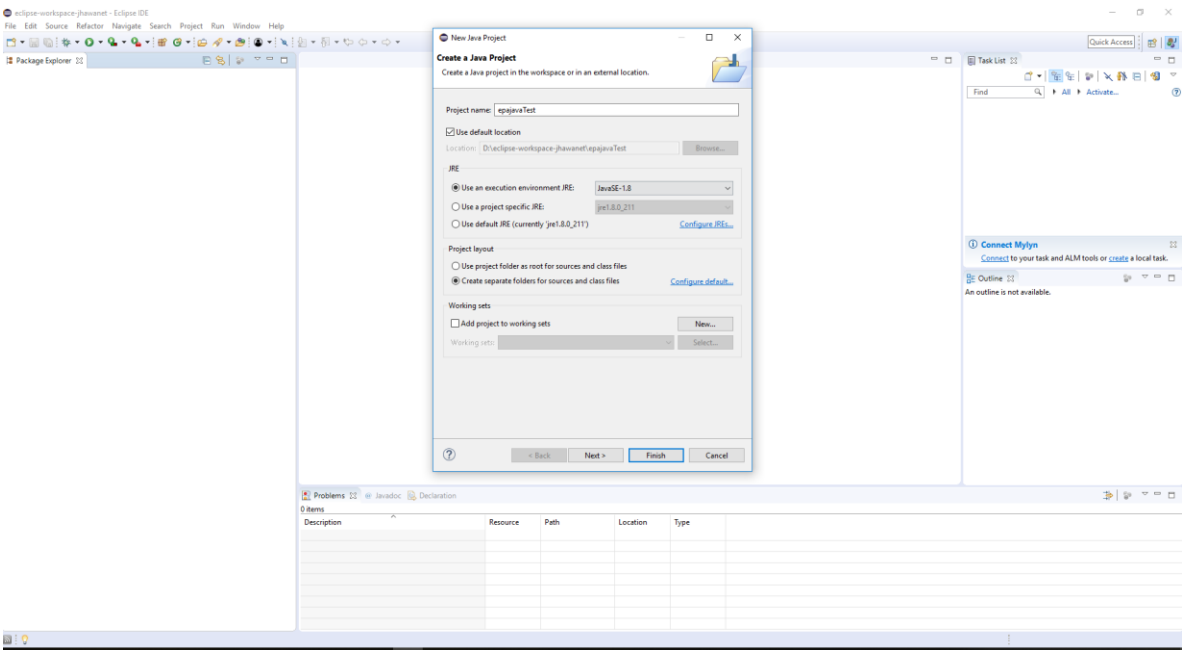

Figure S5. Create a new Java Project in Eclipse, step 2

4. Add the dependency to the downloaded project, for this, it is necessary to configure the configure **Build Path** option, figure 6.

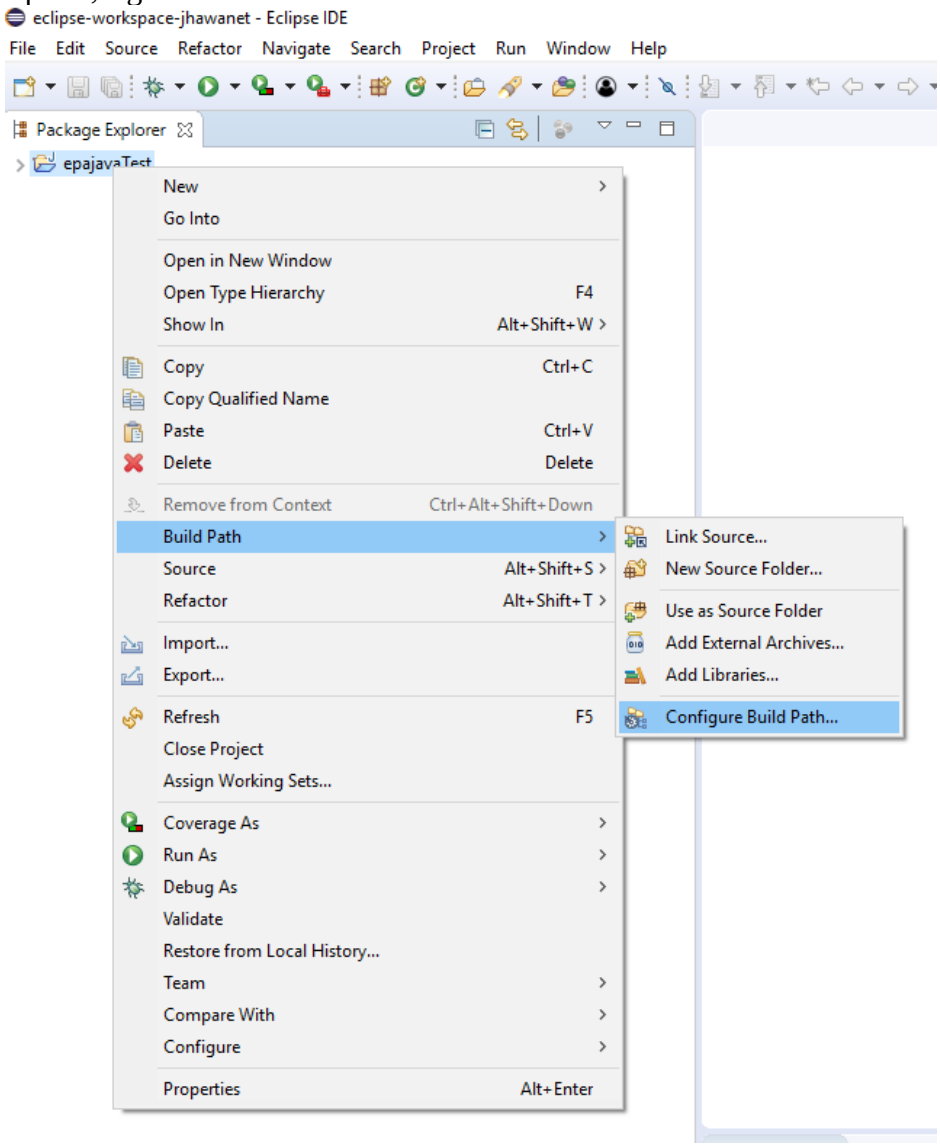

Figure S6. Configuring the project's *Build Path*, step 1

5. Open the window and select the **Libraries** tab, figure 7.

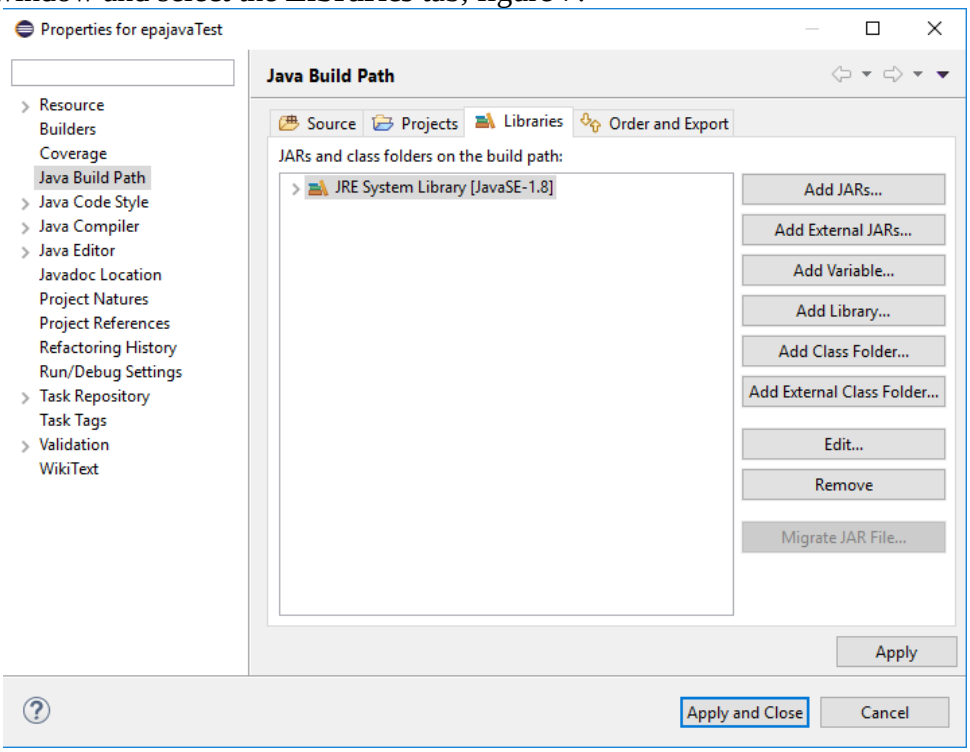

Figure S7. Configuring the project's *Build Path*, step 2

6. Select the **Add External JARs** button, figure 8.

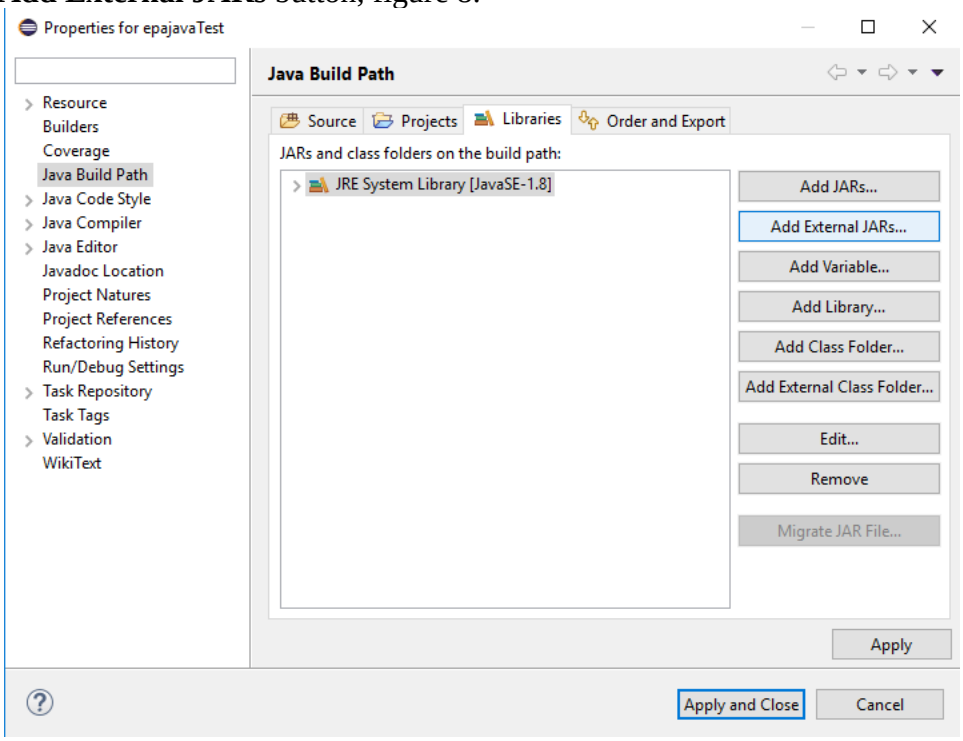

Figure S8. Configuring the project's *Build Path*, step 3

7. Select the folder where the EpaJava project was stored and select the epajava.jar file, figure 9.

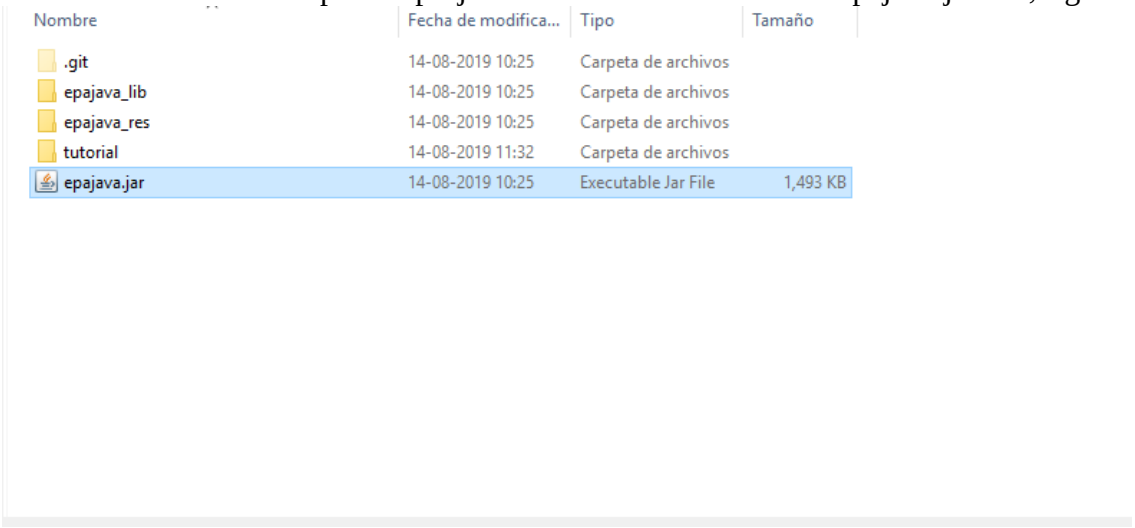

Figure S9. Configuring the project's *Build Path*, step 4

8. Finally, select the **Apply and Close** button, figure 10.

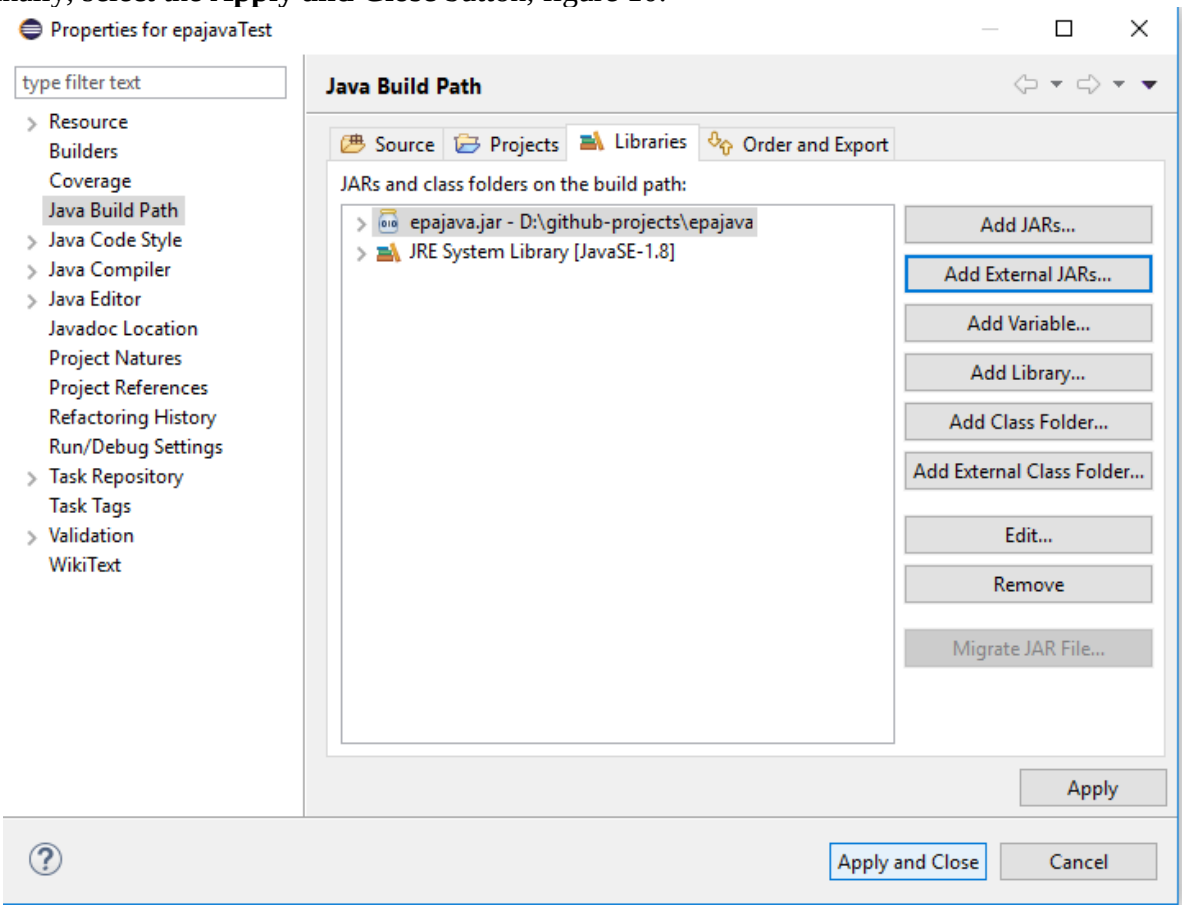

Figure S10. Configuring the project's *Build Path*, step 5

Testing

To perform a test, create a new package to store the networks' information (.inp files).

9. Right-click on the *src* folder and select the option **New > Package**, figure 11.

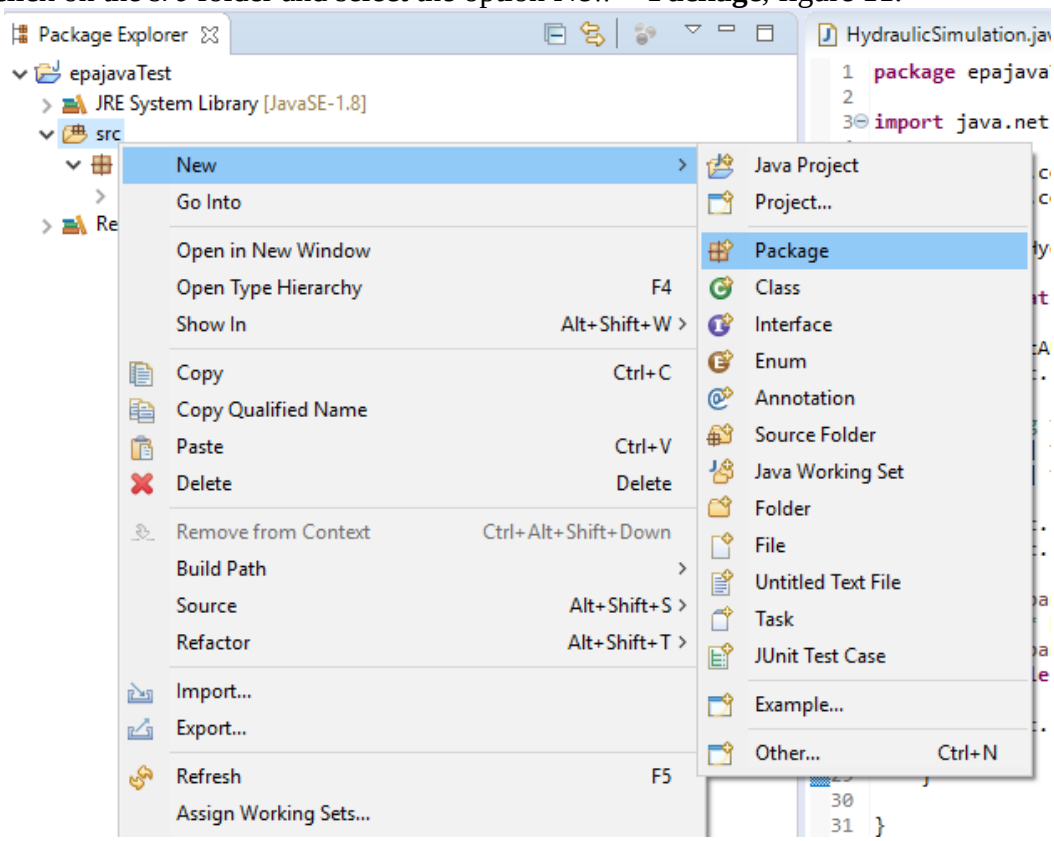

Figure S11. Creating a new package in Eclipse

10. Name the package as “resources” or another name of your choice. Save the .inp file that we will use, then create a class for the test code, figure 12.

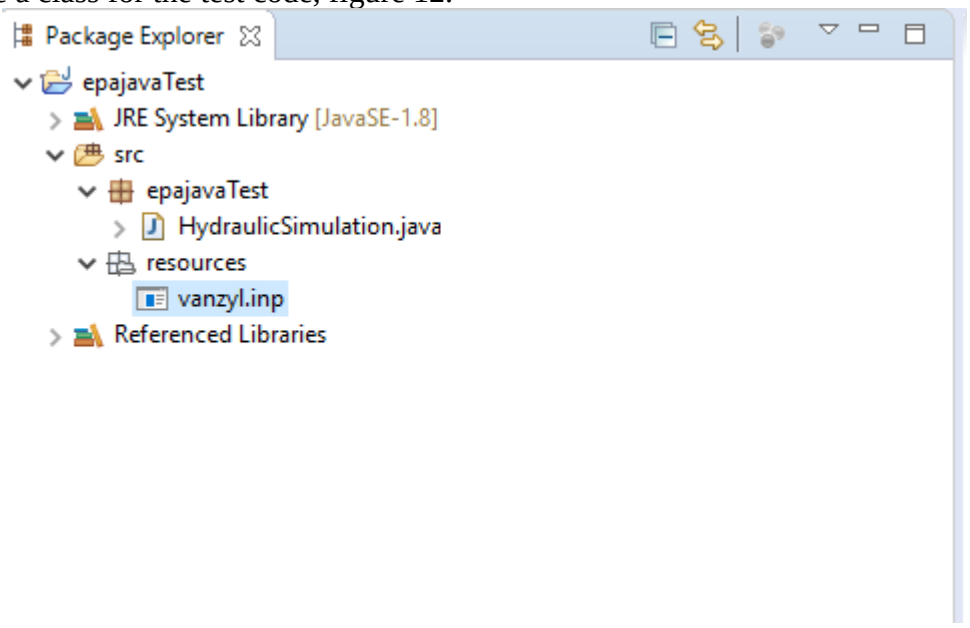

Figure S12. Copying the .inp file to package

11. Right-click on the *src* folder and select the option **New > Class**, figure 13.

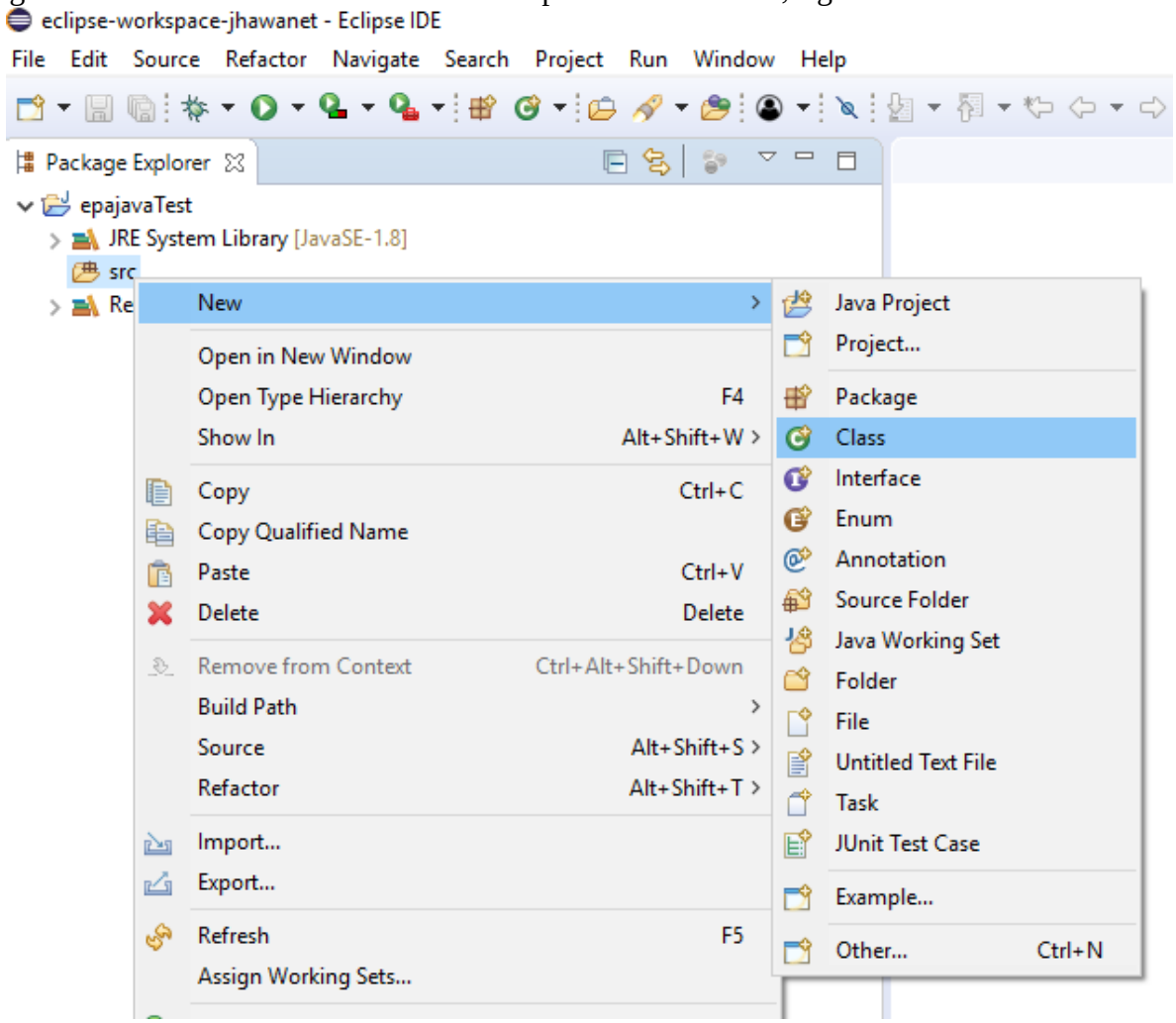

Figure S13. Creating a new class in Eclipse

12. Indicate a name to the class, in this case, we call it “HydraulicSimulation”, figure 14.

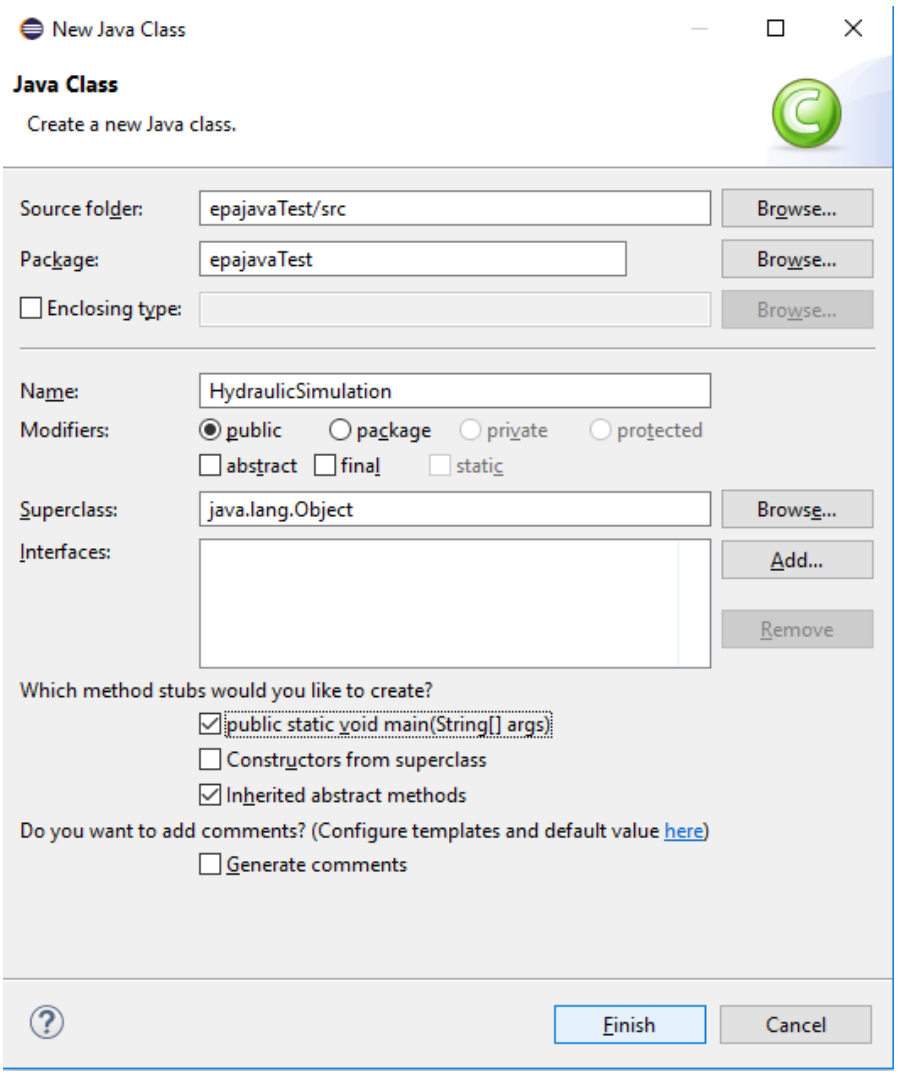

Figure S14. Setting the Java class name

13. Within the created class, copy and paste the following code.

```
import java.net.URISyntaxException;

import epanet.core.EpanetAPI;
import epanet.core.EpanetException;

public class HydraulicSimulation {

	public static void main(String[] args) throws URISyntaxException, EpanetException {

		EpanetAPI epanet = new EpanetAPI();
		epanet.ENopen("src/resources/vanzyl.inp", "src/resources/vanzyl.rpt", "");
```

```
                //long t, tstep;
                long[] tstep = {1};
                long[] t = {0};

                epanet.ENopenH();
                epanet.ENinitH(0);
                do {
                        epanet.ENrunH(t);
                        /* Retrieve hydraulic results for time t */
                        epanet.ENnextH(tstep);
                } while (tstep[0] > 0);

                epanet.ENcloseH();
        }
}
```

14. Finally, to run the experiment select the **Run** tab in the Eclipse menu, and click the first Run option, figure 15.

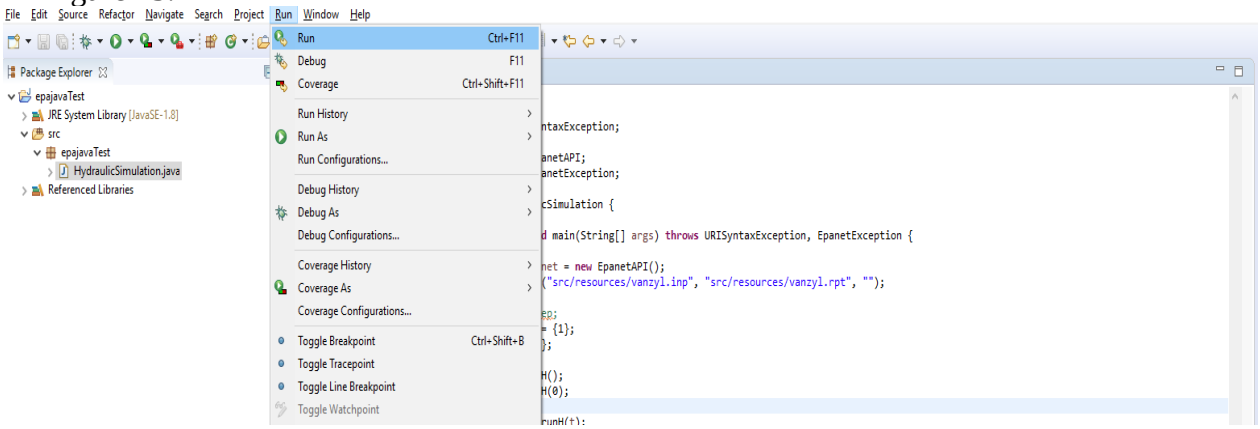

Figure S15. Run the experiment

Case Studies (Epanet files)

VAN ZYL NETWORK

[TITLE]
VanZyl Test Instance
Originally published in:
Van Zyl, J.E., Savic, D.A., Walters, G.A. (2004). Operational Optimization of Water Distribution Systems Using a Hybrid Genetic Algorithm., Journal of Water Resources Planning and Management, ASCE, 130 (3), 160-170.

[JUNCTIONS]

;ID	Elev	Demand	Pattern	
n1	10	0		;
n10	100	0		;
n12	100	0		;
n11	100	0		;
n13	100	0		;
n2	10	0		;
n3	75	0		;
n361	100	0		;
n362	100	0		;
n364	100	0		;
n365	100	0		;
n5	30	50	pattern24	;
n6	30	100	pattern24	;

[RESERVOIRS]

;ID	Head	Pattern	
r1	20		;

[TANKS]

;ID	Elevation	InitLevel	MinLevel	MaxLevel	Diameter	MinVol	VolCurve	
t6	85	9.5	0	10	20	0		;
t5	80	4.5	0	5	25	0		;

[PIPES]

;ID		Node1	Node2	Length	Diameter	Roughness	MinorLoss
	Status						
p1		r1	n1	1	1000	100	0
	Open	;					
p10		n1	n10	1	1000	100	0
	Open	;					
p12		n1	n12	1	1000	100	0
	Open	;					
p11		n11	n2	1	1000	100	0
	Open	;					
p13		n13	n2	1	1000	100	0
	Open	;					
p2		n2	n3	2600	450	100	0
	Open	;					
p18		n3	n361	1	1000	100	0
	Open	;					
p361		n361	n362	1	1000	100	0
	Open	;					
p364		n364	n365	1	1000	100	0
	Open	;					
p4		n365	t6	2000	350	100	0
	Open	;					
p6		t6	n6	1100	300	100	0
	Open	;					
p5		t5	n5	500	300	100	0
	Open	;					
p3		n3	t5	1000	350	100	0
	Open	;					
p7		n6	n5	1	200	100	0
	Open	;					
p19		n361	n365	1	1000	100	0
	CV	;					

[PUMPS]

;ID	Node1	Node2	Parameters	
pmp1	n10	n11	HEAD 1	;
pmp2	n12	n13	HEAD 1	;

```
 pmp6            n362            n364            HEAD 2          ;

[VALVES]
;ID             Node1           Node2           Diameter        Type    Setting         MinorLoss

[TAGS]

[DEMANDS]
;Junction       Demand          Pattern         Category

[STATUS]
;ID             Status/Setting

[PATTERNS]
;ID             Multipliers
;
 pattern24      0.62            0.62            0.67            0.76            0.91            1.1
 pattern24      1.48            1.71            1.48            1.02            0.73            0.55
 pattern24      0.49            0.55            0.73            1.02            1.36            1.53
 pattern24      1.53            1.36            1.1             0.91            0.76            0.67
;
 pumptariff             0.0244          0.0244          0.0244          0.0244          0.0244          0.0244
 pumptariff             0.0244          0.1194          0.1194          0.1194          0.1194          0.1194
 pumptariff             0.1194          0.1194          0.1194          0.1194          0.1194          0.1194
 pumptariff             0.1194          0.1194          0.1194          0.1194          0.1194          0.1194

[CURVES]
;ID             X-Value         Y-Value
;BOMBA:  PUMP:
 1              161.08          77.84
;PUMP: PUMP: EFFICIENCY:
 leff           50              78
 leff           107             80
 leff           151             68
 leff           200             60
;BOMBA:
 2              75              89.44

[CONTROLS]
```

[RULES]

[ENERGY]
 Global Efficiency 85
 Global Price 0
 Demand Charge 0
 Pump pmp1 Efficiency leff
 Pump pmp1 Price 1
 Pump pmp1 Pattern pumptariff
 Pump pmp2 Efficiency leff
 Pump pmp2 Price 1
 Pump pmp2 Pattern pumptariff
 Pump pmp6 Price 1
 Pump pmp6 Pattern pumptariff

[EMITTERS]
;Junction Coefficient

[QUALITY]
;Node InitQual

[SOURCES]
;Node Type Quality Pattern

[REACTIONS]
;Type Pipe/Tank Coefficient

[REACTIONS]
 Order Bulk 1
 Order Tank 1
 Order Wall 1
 Global Bulk 0
 Global Wall 0
 Limiting Potential 0
 Roughness Correlation 0

[MIXING]
;Tank Model

[TIMES]

Duration	23:00
Hydraulic Timestep	1:00
Quality Timestep	0:05
Pattern Timestep	1:00
Pattern Start	0:00
Report Timestep	1:00
Report Start	0:00
Start ClockTime	12 am
Statistic	None

[REPORT]

Status	No
Summary	No
Page	0

[OPTIONS]

Units	LPS
Headloss	H-W
Specific Gravity	1
Viscosity	1
Trials	40
Accuracy	0.00001
CHECKFREQ	2
MAXCHECK	10
DAMPLIMIT	0
Unbalanced	Continue 10
Pattern	pattern24
Demand Multiplier	1.0
Emitter Exponent	0.5
Quality	None mg/L
Diffusivity	1
Tolerance	0.01

[COORDINATES]

```
;Node           X-Coord         Y-Coord
 n1             2100.00         3900.00
 n10            2300.00         3700.00
 n12            2300.00         4100.00
 n11            2700.00         3700.00
 n13            2700.00         4100.00
 n2             2900.00         3900.00
 n3             3800.00         4800.00
 n361           3800.00         5300.00
 n362           3500.00         5300.00
 n364           3500.00         5800.00
 n365           3800.00         5800.00
 n5             4500.00         6000.00
 n6             4500.00         6500.00
 r1             1800.00         3900.00
 t6             3800.00         6500.00
 t5             4500.00         4800.00

[VERTICES]
;Link           X-Coord         Y-Coord

[LABELS]
;X-Coord          Y-Coord         Label & Anchor Node
 2344.11         3553.23         "Pump1A" n10
 2344.09         4408.22         "Pump2B" n12
 2846.64         5543.66         "Pump3B" n362
 4270.52         4707.55         "TankA" t5
 3283.05         6490.98         "TankB" t6

[BACKDROP]
 DIMENSIONS      1665.00         3300.00         4635.00         6640.00
 UNITS           Ninguno
 FILE
 OFFSET                0.00            0.00

[END]
```

BAGHMALEK NETWORK

[TITLE]
Baghmalek

[JUNCTIONS]

;ID	Elev	Demand	Pattern	
1	745	0	1	;
2	748.73	9.7	1	;
3	730.99	10.3	1	;
4	739.59	10.7	1	;
5	751.78	12	1	;
6	753.66	9.5	1	;
7	747.55	4	1	;
8	729.88	0.29	1	;
9	757.04	8	1	;
10	729.25	0.38	1	;
11	727	1.7	1	;
12	730.88	1.38	1	;
13	731.38	0.82	1	;
14	732	0.44	1	;
15	731.2	0.8	1	;
16	733	1.9	1	;
17	733.25	1.2	1	;
18	733.5	0.88	1	;
19	734.5	0.16	1	;
20	734.5	0.14	1	;
21	733.52	0.95	1	;
22	733.5	0.91	1	;
23	737.7	0.86	1	;
24	741.5	1.22	1	;
25	742.25	0.91	1	;
26	736.25	0.54	1	;
27	736	0.75	1	;
28	737	0.65	1	;
29	734	0.93	1	;
30	732.5	0.43	1	;
31	732.25	0.42	1	;
32	729.25	0.8	1	;

```
33              730.75          0.85            1               ;

[RESERVOIRS]
;ID             Head            Pattern
34              750                             ;

[TANKS]
;ID             Elevation       InitLevel       MinLevel        MaxLevel        Diameter        MinVol
        VolCurve
35              760             4.5             0.5             4.5             4.63            0
        ;

[PIPES]
;ID             Node1           Node2           Length          Diameter        Roughness       MinorLoss
        Status
1               1               2               512.44          322.6           130             0
        Open    ;
2               2               3               212.7           254.4           130             0
        Open    ;
3               3               4               258.16          113.6           130             0
        Open    ;
4               3               5               1112            322.6           130             0
        Open    ;
5               5               6               454.79          363.6           130             0
        Open    ;
6               6               7               401.79          145.4           130             0
        Open    ;
7               7               8               986.7           181.8           130             0
        Open    ;
8               6               9               705.53          113.6           130             0
        Open    ;
9               8               33              35.93           113.6           130             0
        Open    ;
10              8               32              48.2            181.8           130             0
        Open    ;
11              32              10              39.54           113.6           130             0
        Open    ;
12              10              11              50.05           100             130             0
        Open    ;
```

13 11 12 80.82 100 130 0
Open ;
14 15 16 81.39 100 130 0
Open ;
15 16 17 48.98 113.6 130 0
Open ;
16 17 14 75.28 100 130 0
Open ;
17 10 13 81.42 181.8 130 0
Open ;
18 17 18 41.86 181.8 130 0
Open ;
19 18 19 43.89 100 130 0
Open ;
20 32 18 178.94 113.6 130 0
Open ;
21 21 33 179 100 130 0
Open ;
22 21 20 43.89 145.4 130 0
Open ;
23 21 29 40.34 181.8 130 0
Open ;
24 29 30 72.17 145.4 130 0
Open ;
25 22 31 80.91 145.4 130 0
Open ;
26 23 22 49.17 100 130 0
Open ;
27 23 26 81.77 100 130 0
Open ;
28 24 23 52.07 181.8 130 0
Open ;
29 24 25 78.71 100 130 0
Open ;
30 27 28 78.47 113.6 130 0
Open ;
31 28 29 50.48 100 130 0
Open ;

32		22	33	40.49	145.4	130	0
	Open	;					
33		4	35	573	100	130	0
	Open	;					
34		35	5	1000	100	130	0
	Open	;					

[PUMPS]

;ID	Node1	Node2	Parameters	
35	34	1	HEAD 2	;
36	34	1	HEAD 2	;
37	34	1	HEAD 2	;
38	34	1	HEAD 2	;
39	34	1	HEAD 2	;
40	34	1	HEAD 2	;

[VALVES]

;ID	Node1	Node2	Diameter	Type	Setting	MinorLoss

[TAGS]

[DEMANDS]

;Junction	Demand	Pattern	Category

[STATUS]

;ID	Status/Setting

[PATTERNS]

;ID	Multipliers					
; Demands						
1	0.37	0.25	0.12	0.17	0.21	0.5
1	0.7	0.87	1	1.25	1.5	1.87
1	2.1	1.87	1.25	1	0.75	1.24
1	1.4	1.85	1.24	1	0.5	0.25
; Energy						
2	1	0.5	0.5	0.5	0.5	0.5
2	0.5	0.5	1	1	1	1
2	1	1	1	1	1	1
2	2	2	2	2	2	1

[CURVES]
;ID X-Value Y-Value
;BOMBA:
1 11.2 80
1 22 74
1 33.75 65
1 43.75 55
1 55 35
;BOMBA:
2 36.75 61.58

[CONTROLS]

[RULES]

[ENERGY]
Global Efficiency 75
Global Price 0.18
Demand Charge 0.48
Pump 35 Pattern 2
Pump 36 Pattern 2
Pump 37 Pattern 2
Pump 38 Pattern 2
Pump 39 Pattern 2
Pump 40 Pattern 2

[EMITTERS]
;Junction Coefficient

[QUALITY]
;Node InitQual

[SOURCES]
;Node Type Quality Pattern

[REACTIONS]
;Type Pipe/Tank Coefficient

[REACTIONS]

Order Bulk	1
Order Tank	1
Order Wall	1
Global Bulk	0
Global Wall	0
Limiting Potential	0
Roughness Correlation	0

[MIXING]

;Tank Model

[TIMES]

Duration	23:00
Hydraulic Timestep	1:00
Quality Timestep	0:05
Pattern Timestep	1:00
Pattern Start	0:00
Report Timestep	1:00
Report Start	0:00
Start ClockTime	12 am
Statistic	NONE

[REPORT]

Status	No
Summary	No
Page	0

[OPTIONS]

Units	LPS
Headloss	H-W
Specific Gravity	1
Viscosity	1
Trials	40
Accuracy	0.001
CHECKFREQ	2
MAXCHECK	10

DAMPLIMIT	0
Unbalanced	Continue 10
Pattern	1
Demand Multiplier	1
Emitter Exponent	0.5
Quality	None mg/L
Diffusivity	1
Tolerance	0.01

[COORDINATES]

;Node	X-Coord	Y-Coord
1	1000.00	900.00
2	1000.00	800.00
3	1000.00	700.00
4	1150.00	700.00
5	1000.00	300.00
6	850.00	300.00
7	850.00	700.00
8	450.00	700.00
9	850.00	100.00
10	600.00	650.00
11	700.00	650.00
12	700.00	550.00
13	600.00	550.00
14	600.00	500.00
15	700.00	500.00
16	700.00	400.00
17	600.00	400.00
18	500.00	400.00
19	500.00	350.00
20	400.00	350.00
21	400.00	400.00
22	300.00	650.00
23	200.00	650.00
24	100.00	650.00
25	100.00	550.00
26	200.00	550.00
27	200.00	500.00
28	200.00	400.00

```
 29              300.00          400.00
 30              300.00          500.00
 31              300.00          550.00
 32              500.00          650.00
 33              400.00          650.00
 34              1400.00         900.00
 35              1150.00         300.00
[VERTICES]
;Link            X-Coord         Y-Coord
 35              1250.00         900.00
 35              1250.00         950.00
 35              1150.00         950.00
 35              1150.00         900.00
 36              1250.00         900.00
 36              1250.00         925.00
 36              1150.00         925.00
 36              1150.00         900.00
 38              1250.00         900.00
 38              1250.00         875.00
 38              1150.00         875.00
 38              1150.00         900.00
 39              1250.00         900.00
 39              1250.00         850.00
 39              1150.00         850.00
 39              1150.00         900.00
 40              1250.00         900.00
 40              1250.00         825.00
 40              1150.00         825.00
 40              1150.00         900.00
[LABELS]
;X-Coord         Y-Coord         Label & Anchor Node
[BACKDROP]
 DIMENSIONS      35.00           60.00           1465.00         940.00
 UNITS           Ninguno
 FILE
 OFFSET          0.00            0.00

[END]
```

ANYTOWN NETWORK

[TITLE]
ANYTOWN example

[JUNCTIONS]

;ID	Elev	Demand	Pattern	
2	20	350	1	;
3	50	140	1	;
4	50	140	1	;
5	50	420	1	;
6	80	280	1	;
7	120	280	1	;
8	120	280	1	;
9	120	280	1	;
10	50	350	1	;
11	50	350	1	;
12	50	350	1	;
14	50	350	1	;
15	120	280	1	;
17	120	700	1	;
16	50	350	1	;
13	50	700	1	;
1	20	0	1	;
18	120	0	1	;

[RESERVOIRS]

;ID	Head	Pattern	
20	10		;

[TANKS]

;ID	Elevation	InitLevel	MinLevel	MaxLevel	Diameter	MinVol	VolCurve
21	0	250	222	250	40	0	;

[PIPES]

;ID	Node1	Node2	Length	Diameter	Roughness	MinorLoss	Status

1		2	3	12000	12	120	0
	Open	;					
2		2	10	12000	12	70	0
	Open	;					
3		2	11	12000	16	70	0
	Open	;					
4		2	1	100	30	130	0
	Open	;					
5		3	4	6000	10	120	0
	Open	;					
6		3	5	9000	10	120	0
	Open	;					
7		3	11	9000	12	70	0
	Open	;					
8		3	12	6000	10	120	0
	Open	;					
9		4	5	6000	10	120	0
	Open	;					
11		5	6	12000	8	120	0
	Open	;					
12		5	14	6000	10	120	0
	Open	;					
17		6	7	12000	8	120	0
	Open	;					
18		6	14	6000	10	120	0
	Open	;					
19		6	15	6000	8	120	0
	Open	;					
20		6	17	6000	8	120	0
	Open	;					
21		7	8	6000	8	120	0
	Open	;					
22		8	9	6000	8	120	0
	Open	;					
23		8	17	6000	10	120	0
	Open	;					
24		9	10	6000	8	120	0
	Open	;					

26		10	17	6000	10	120	0
	Open	;					
27		10	16	6000	8	70	0
	Open	;					
28		11	12	6000	12	70	0
	Open	;					
29		11	16	6000	12	70	0
	Open	;					
30		11	13	6000	10	70	0
	Open	;					
31		12	14	6000	12	70	0
	Open	;					
32		12	13	6000	10	70	0
	Open	;					
34		14	15	6000	10	70	0
	Open	;					
35		14	13	6000	10	70	0
	Open	;					
36		15	17	6000	8	120	0
	Open	;					
37		15	16	6000	12	70	0
	Open	;					
38		15	13	6000	10	70	0
	Open	;					
39		17	16	6000	8	120	0
	Open	;					
40		17	18	100	12	120	0
	Open	;					
41		16	13	6000	10	70	0
	Open	;					
143		18	21	1	12	120	0
	Open	;					
125		9	17	9000	0.0001	130	0
	Open	;					

[PUMPS]

;ID	Node1	Node2	Parameters	
80	20	1	HEAD 4	;
10	20	1	HEAD 4	;

```
 13              20              1               HEAD 4          ;
 14              20              1               HEAD 4          ;

[VALVES]
;ID             Node1           Node2           Diameter        Type    Setting         MinorLoss

[TAGS]

[DEMANDS]
;Junction       Demand          Pattern         Category

[STATUS]
;ID             Status/Setting

[PATTERNS]
;ID             Multipliers
;Daily water use pattern
 1              1.2             0.4             0.5             0.6             0.7             0.8
 1              0.9             1               1.1             1.2             1.2             0.4
 1              0.5             0.6             0.7             0.8             0.9             1
 1              1.1             1.2             1.2             0.4             0.5             0.6

[CURVES]
;ID             X-Value         Y-Value
;BOMBA:  PUMP: PUMP: ID          X-Value         Y-Value
 2              0.              3000
 2              20000           2920
 2              40000           2700
 2              60000           2300
 2              80000           1810
;PUMP: PUMP: PUMP: PUMP: PUMP: ID                flow            efficiency
 E1             0.              0
 E1             2000            50
 E1             4000            65
 E1             6000            55
 E1             8000            40
;BOMBA:
 4              4217.52         426.9
```

[CONTROLS]

[RULES]

[ENERGY]
 Global Efficiency 75
 Global Price 0
 Demand Charge 0

[EMITTERS]
;Junction Coefficient

[QUALITY]
;Node InitQual

[SOURCES]
;Node Type Quality Pattern

[REACTIONS]
;Type Pipe/Tank Coefficient

[REACTIONS]
 Order Bulk 1
 Order Tank 1
 Order Wall 1
 Global Bulk 0
 Global Wall 0
 Limiting Potential 0
 Roughness Correlation 0

[MIXING]
;Tank Model

[TIMES]
 Duration 23:00
 Hydraulic Timestep 1:00
 Quality Timestep 1:00
 Pattern Timestep 1:00
 Pattern Start 0:00

Report Timestep	1:00
Report Start	0:00
Start ClockTime	0:00
Statistic	NONE

[REPORT]

Status	No
Summary	No
Page	0

[OPTIONS]

Units	GPM
Headloss	D-W
Specific Gravity	1
Viscosity	1
Trials	40
Accuracy	0.001
CHECKFREQ	2
MAXCHECK	10
DAMPLIMIT	0
Unbalanced	Continue 10
Pattern	1
Demand Multiplier	1.0
Emitter Exponent	0.5
Quality	NONE mg/L
Diffusivity	1.0
Tolerance	0.01

[COORDINATES]

;Node	X-Coord	Y-Coord
2	7682.33	3371.15
3	7633.71	5737.44
4	7520.26	7293.35
5	6175.04	7568.88
6	3321.19	6696.55
7	1305.62	4850.97
8	2317.45	3588.20
9	3701.63	2892.06
10	4846.03	3354.94

11	6450.57	4424.64
12	6466.77	5769.85
14	5094.45	6482.09
15	4017.86	5615.96
17	3005.49	4292.43
16	4846.03	4440.84
13	5332.25	5332.25
1	8544.18	3371.15
18	2420.38	4294.64
20	10031.61	3377.58
21	2420.38	5022.84

[VERTICES]

;Link	X-Coord	Y-Coord
10	9691.33	3860.78
10	8840.63	3867.58
13	9773.00	2839.94
13	8895.07	2839.94
14	9702.39	4253.80
14	8858.49	4253.80

[LABELS]

;X-Coord Y-Coord Label & Anchor Node

[BACKDROP]

DIMENSIONS	935.87	2613.65	9070.35	8738.70
UNITS	Ninguno			
FILE				
OFFSET	0.00	0.00		

[END]