Content of the examples library

The examples provided with **Antares-**simulator are theoretical studies that cover the main modeling features of the tool. The studies are located in an "examples" folder to be found in the installation directory. A short presentation of each case is available in the "User's Notes" section of each study

000 Free Data Sample	*Dataset illustrating various features of the GUI*
001 One node – Passive	*A blank framework to start from*
002 Thermal fleet – Base	*Use of a simple thermal fleet*
003 Thermal fleet – Must-run	*Addition of must-run units*
004 Thermal fleet – Partial must-run	*Addition of must-run units*
005 Thermal fleet – Min power & Min up-down times	*Addition of dynamic constraints*
006 Thermal fleet – Extra costs	*Addition of NLHC and start-up costs*
007 Thermal fleet – Unit Commitment-1	*U.C computed in "fast" mode*
008 Thermal fleet – Unit Commitment-2	*U.C computed in "accurate"mode*
009 TS generation – Thermal power	*Use of the thermal time-series generator*
010 TS generation – Wind speed	*Use of the wind time-series generator*
011 TS generation – Wind power – small scale	*Use of the wind time-series generator*
012 TS generation – Wind power – large scale	*Use of the wind time-series generator*
013 TS generation – Solar power	*Use of the solar time-series generator*
014 TS generation – Load	*Use of the load time-series generator*
015 TS generation – Hydro power	*Use of the hydro time-series generator*
016 Probabilistic vs deterministic – 1	*Monte Carlo simulation*
017 Probabilistic vs deterministic – 2	*Monte Carlo simulation*
018 Probabilistic vs deterministic – 3	*Monte Carlo simulation*
019 Reservoir hydro energy policy	*Optimization of water utilization*
020 Single mesh – DC law	*Enforcing Kirchhoff's laws*
021 Four areas – DC law	*Enforcing Kirchhoff's laws*
022 Negative marginal price	*Unusual economic configurations*
023 Anti-pricewise flows	*Unusual economic configurations*
024 Hurdle costs 01	*Modelling losses &/or grid access cost*
025 Hurdle costs 02	*Modelling losses &/or grid access cost*
026 Day ahead reserve 01	*Insurance against forecast errors*
027 Day ahead reserve 02	*Insurance against forecast errors*
028 Pumped storage plant – 1	*A PSP facility with a daily cycle*
029 Pumped storage plant – 2	*A PSP facility with a daily cycle*
030 Pumped storage plant – 3	*A PSP facility with reservoir constraints*
031 Wind Analysis	*Modelling of three correlated wind fields*
032 Exploited Wind Fields	*Modelling of the operation of wind farms*
033 Mixed Expansion – Storage	*Transmission & Generation expansion*
034 Mixed Expansion – Smart grid model 1	*T & G development with DSM policy*
035 Mixed Expansion – Smart grid model 2	*T & G development with DSM policy*
036 Multistage study–1–Isolated systems	*Economics of grid expansion*
037 Multistage study–2–Copperplate	*Economics of grid expansion*
038 Multistage study–3– PTDF	*Economics of grid expansion*
039 Multistage study–4– Kirchhoff	*Economics of grid expansion*
040 Multistage study–5– Derated	*Economics of grid expansion*
041 Multistage study–6– NTC	*Economics of grid expansion*
042 Multistage study–7– PTDF	*Economics of grid expansion*
043 Multistage study–8- Kirchhoff	*Economics of grid expansion*
044 PSP strategies–1– No PSP	*Economics of pump storage*
045 PSP strategies–2– Det Pumping	*Economics of pump storage*
046 PSP strategies–3– Opt daily	*Economics of pump storage*
047 PSP strategies–4– Opt weekly	*Economics of pump storage*

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048 Benchmark CPU RAM HDD	*A 52-node system, unconstrained flow*
049 Benchmark CPU RAM HDD	*A 52-node system, DC flow*
050 Export MPS Files	*Export of ANTARES problems (solver benchmarking)*
051 Benchmark CPU RAM HDD	*A 104-node system, unconstrained flow*
052 Benchmark CPU RAM HDD	*A 104-node system, DC flow*
053 System Map Editor– 1	*Graphic interface: Map design features*
054 System Map Editor– 2	*Graphic interface: Map design features*
055 System Map Editor– 3	*Graphic interface: Map design features*
056 System Map Editor– 4	*Graphic interface: Map design features*
057 Four areas - Grid outage 01	*Simulation of forced outages on interconnections*
058 Four areas - Grid outages 02	*Simulation of forced outages on interconnections*
059 Four areas - Grid outages 03	*Simulation of forced outages on interconnections*
060 Four areas - Grid outages 04	*Simulation of forced outages on interconnections*
061 Four areas - Grid outages 05	*Simulation of forced outages on interconnections*
062 Grid-Topology changes on contingencies 01	*Adaptation of the topology to face N-1 outages*
063 Grid-Topology changes on contingencies 02	*Adaptation of the topology to face N-1 outages*
064 Probabilistic exchange capacity	*Simulation of forced outages on interconnections*
065 Pumped storage plant -explicit model-01	*Simulation of an energy storage facility*
066 Pumped storage plant -explicit model-02	*Simulation of an energy storage facility*
067 Pumped storage plant -explicit model-03	*Simulation of an energy storage facility*
068 Hydro Reservoir Model -enhanced-01	*Study of alternative hydro management policies*
069 Hydro Reservoir Model -enhanced-02	*Study of alternative hydro management policies*
070 Hydro Reservoir Model -enhanced-03	*Study of alternative hydro management policies*
071 Hydro Reservoir Model -enhanced-04	*Study of alternative hydro management policies*
072 Hydro Reservoir Model -enhanced-05	*Study of alternative hydro management policies*
073 Hydro Reservoir Model -enhanced-06	*Study of alternative hydro management policies*
074 KCG on Four areas -01	*Automatic generation of Kirchhoff's flow constraints*
075 KCG on Four areas -02	*Automatic generation of Kirchhoff's flow constraints*
076 KCG on regional dataset 01	*Automatic generation of Kirchhoff's flow constraints*
077 KCG on regional dataset 02	*Automatic generation of Kirchhoff's flow constraints*
078 KCG on regional dataset 03	*Automatic generation of Kirchhoff's flow constraints*
079 Zero Power Balance - Type 1	*Special equilibrium on a regional grid*
080 Zero Power Balance - Type 2	*Special equilibrium on a regional grid*
081 Zero Power Balance - Type 3	*Special equilibrium on a regional grid*
082 Zero Power Balance - Type 4	*Special equilibrium on a regional grid*
083 Zero Energy Balance - daily	*Special equilibrium on a regional grid*
084 Zero Energy Balance - weekly	*Special equilibrium on a regional grid*
085 Zero Energy Balance - annual	*Special equilibrium on a regional grid*

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