MAEP
User's manual v.0

Universidad de los Andes

Electrical analysis and planning

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Electrical analysis and planning - MAEP

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1. First steps

1.1. Online execution

1.1.1. Platform

1.1.2. Type of users

- Administrator:
- Standard:
- Limited:

1.1.3. Input data

Table 1

Library	Description

1.2. Local execution

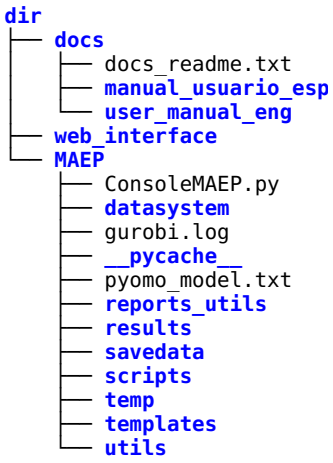

Fig. 1

1.2.1. Source code

Table 2

Library	Description

1.2.2. Development

1.3. Repository

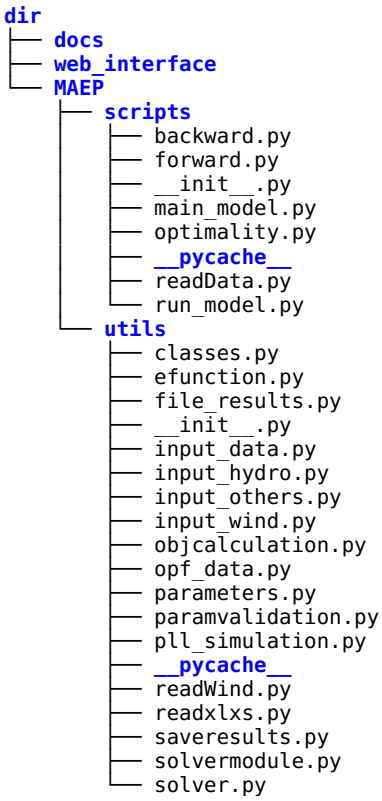

Fig. 2

2. Data library

2.1. New projects

Web interface:

Input file:

2.2. Data base

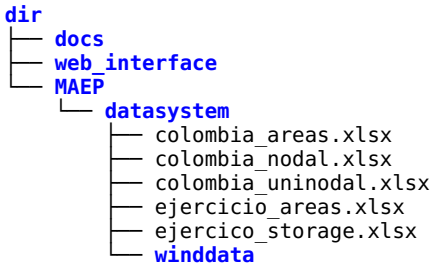

Fig. 3

2.2.1. Test files

2.2.2. Shared information

3. Forecasting resources

3.1. Hydro inflows

Table 3

Parameters	Units	Description	Status

3.2. Wind speed

Table 4

Parameters	Units	Description	Status

Note:

Note:

4. Generation units

4.1. Thermal plants

4.1.1. Configuration

Table 5

Parameters	Units	Description	Status

4.1.2. Expansion capabilities

Note:

4.1.3. Fuel

Note:

4.2. Hydro plants

4.2.1. Configuration

4.2.2. Expansion capabilities

Note:

4.2.3. Hydro chains

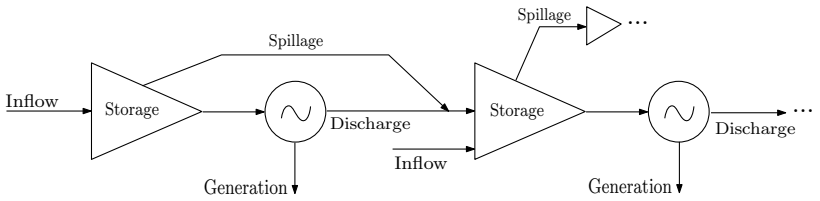

Fig. 4

Table 6

Parameters	Units	Description	Status

Table 7

Parameters	Units	Description	Status

Table 8

Parameters	Units	Description	Status

4.3. Small plants

4.3.1. Configuration

4.3.2. Expansion capabilities

Note:

4.4. Wind power plants

4.4.1. Configuration

4.4.2. Expansion capabilities

Note:

4.4.3. Wind speed intensities

Note:

- *Experimental module:*

4.4.4. Practical models

Wind power model M2

Note:

4.5. Storage units

4.5.1. Configuration

4.5.2. Expansion capabilities

Note:

Table 9

Parameters	Units	Description	Status

Table 10

Parameters	Units	Description	Status

Table 11

Parameters	Units	Description	Status

Table 12

Parameters	Units	Description	Status

Table 13

Parameters	Units	Description	Status

Table 14

Parameters	Units	Description	Status

Table 15

Parameters	Units	Description	Status

Table 16

Parameters	Units	Description	Status

Table 17

Parameters	Units	Description	Status

Table 18

Parameters	Units	Description	Status

5. Power system model

5.1. Electrical areas/nodes

Table 19

Parameters	Units	Description	Status

Note:

5.2. Interconnection

Table 20

Parameters	Units	Description	Status

5.2.1. Expansion of transmission network

Table 21

Parameters	Units	Description	Status

Note:

5.2.2. Optimal power flow

5.2.3. Security constraints

Table 22

Parameters	Units	Description	Status

Note:

5.3. Demand

Table 23

Parameters	Units	Description	Status

Note:

5.4. Rationing

Table 24

Parameters	Units	Description	Status

Note:

Table 25

Parameters	Units	Description	Status

Table 26

Parameters	Units	Description	Status

5.5. Blocks

5.5.1. Load curve

5.5.2. Storage systems restrictions

Table 27

Parameters	Units	Description	Status

Note:

6. Parameters

6.1. Type of parameters

Table 28

Parameters	Units	Description	Status

6.2. Basic parameters

Table 29

Parameters	Units	Description	Status

6.3. Deterministic/Stochastic

6.4. Risk aversion

Table 30

Parameters	Units	Description	Status

6.5. Short-term variability

Table 31

Parameters	Units	Description	Status

7. Output files

7.1. Results

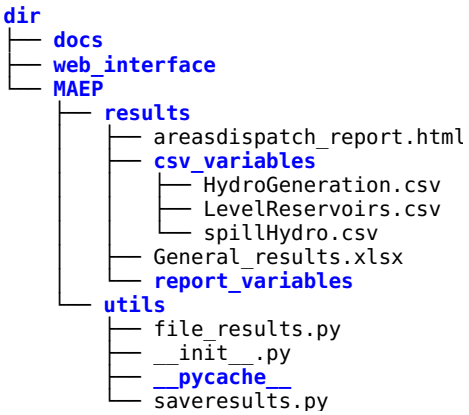

Fig. 5

7.2. Graph module

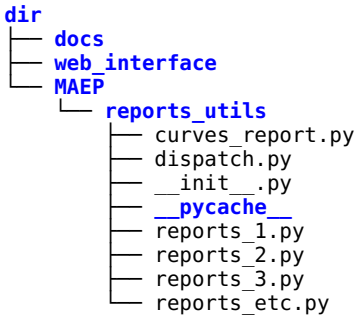

Fig. 6