



Mathcad – Use Cases for Power Generation



Power Generation



Calculations are fundamental to businesses in many industries

Power Generation

Sargent & Lundy
Siemens Power
Southern Co.
Westinghouse
Hydro Quebec

Gas, Steam,
Electric &
Nuclear power
plant design

Corrective &
Preventive
maintenance

Power
Distribution

Generator
Design

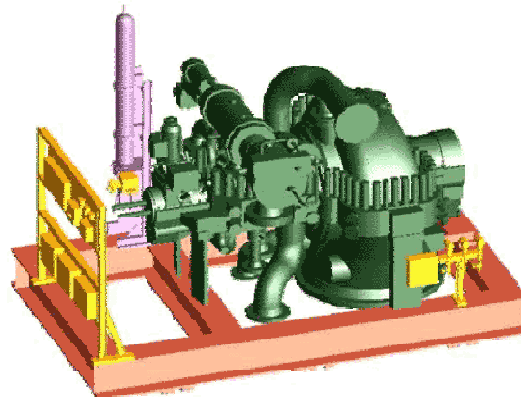
Power Generation

•Opportunity:

- Use Mathcad to design, certify & maintain large projects.
 - Gas, Steam, Wind, and Turbo Powered systems

•Application:

- System design and analysis
- Calculate heat recovery for steam generators
- Emissions analysis, control and documentation



Gaz de France (France)

Gaz de France has to maintain high safety and reliability levels for their facilities while optimising the operating costs of networks. The teams of the Transmission Technologies Section offer methods, tools and guidance for the design, construction, operation and maintenance of pipelines (inspection, defect assessment and repair, and risk prevention management).

PREVIOUS PRODUCT USED OR EVALUATED:

Microsoft Excel Spreadsheets

BUSINESS INITIATIVE

- Consolidate 7 extensive Microsoft Excel spreadsheets into 1 Mathcad worksheet.

SOLUTION

- 2 days of work to migrate all Excel spreadsheet data tables and rewrite complex formulas in Mathcad.

RESULT(S)

- With Mathcad, Gaz de France has achieved better verification of calculations; Excel calculations often contained errors which could not be checked easily
- With Mathcad, engineers have saved significant time in verifying and auditing calculations

