Prognostics
Minimize Downtime

Adding an explicit time horizon to (predictive) diagnostics

Condition-based
availability prognostics
for optimal asset management

CASSANTEC

Zurich, Switzerland ◆ **Berlin**, Germany
**Cleveland**, Ohio, U.S.A.

What *are we offering?*

Condition-based *Prognostics*

► Allowing to minimize scheduled and unscheduled downtime;

► Based on a proprietary and protected computational technology.

Cassantec Prognostics provide explicit time horizons (*what will break when*), enhancing (predictive) diagnostic approaches (*what is currently wrong where*), rendering

► Prognostic reports for mission-critical industrial assets;

► Aggregated availability fore-casts for entire fleets of assets.

For operators of fossil-fired power plants, the solution provides demonstrated annual savings of € 3m per GW generation capacity. Similar estimates can be given for other industries.
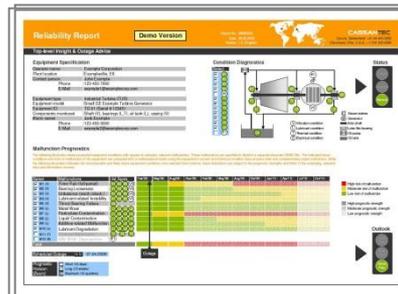
Exemplary prognostic report for mission-critical industrial equipment

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What *is the benefit?*

The benefits of Cassantec Prognostics exceed those of condition monitoring and (predictive) diagnostics thanks to

► Explicit prognostic horizons, and

► Focus on both technical and commercial decisions.

Multiple stakeholder groups benefit from reduced risk, cost and effort.

Generation or *production managers:*

► Reduced downtime costs (saved output, saved revenue);

► Reduced preventive *and* reactive maintenance costs.

Reliability managers:

► Transparent justification for maintenance decisions;

► Longer planning horizon, thereby less fire fighting.

Component engineers:

► Fleet-based learning;

► Formal indication of how long parameters take to reach thresholds.

How does this work?

Cassantec's Prognostics are based on a novel and unique combination of mathematical best-practice techniques to determine condition parameter trends, malfunction risk profiles, and remaining useful life (RUL) distributions of a wide range of industrial assets and components.

Using historical as well as current condition and process data, typically including thermal, vibration and lubricant analysis results, the prognostic reports can be automatically updated in periodical intervals.

Computational results are displayed in a concise, decision-oriented report format, allowing to optimize maintenance operations.

Numerous simulations allow sensitivity analyses and statistical tests to ascertain the robustness of diagnostic insights and prognostic foresight.

The automated, fleet-based learning process enhances the prognostic strength and the horizon of availability forecasts.

Who is Cassantec?

Founded in Zurich, Switzerland, in 2007, Cassantec (short for *Cassan*dra *Tech*nologies) provides state-of-the-art prognostics for industrial asset management.

We offer an online reporting service on a subscription basis as well as software licenses.

Cassandra, prophet of critical future events in Greek mythology

Cassantec is led by a team of accomplished international professionals with strong methodology and technology backgrounds.

Among our promoters is the Swiss government's CTI program. We cooperate with world-renowned universities and industry partners.

References include completed and ongoing collaborations with power, oil & gas, chemical and transportation corporations as well as with equipment manufacturers world-wide.

How can you reach us?

We have offices in Europe and North America and are able to offer our prognostic solution globally.

Please contact us for

► Further information;

► An online demo;

► A price quote for a limited deployment (value proof);

► A fleet-wide roll-out.

We can plug into your existing condition monitoring or diagnostic systems for a complementary prognostic function.

If you are new to condition-based maintenance, we can provide our solution on a stand-alone basis.

Zurich, Switzerland
Cassantec AG
T: +41 44 445 2260

Berlin, Germany
Cassantec GmbH
T: +49 30 5900 833 00

Cleveland, USA
Cassantec U.S. Office
T: +1 216 220 4890

E: info@cassantec.com
W: www.cassantec.com