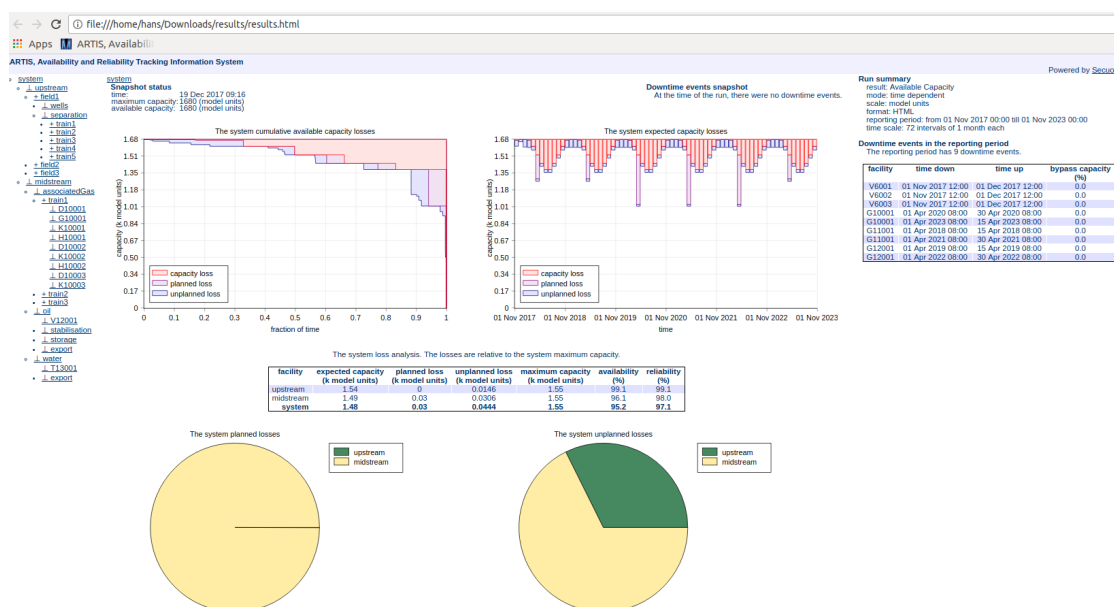


ARTIS - Live application

ARTIS Live represents the integrated facilities one layer above the main company data sources including the Plant Information database, Maintenance Management database, Distributed Control Systems (or associated historian systems) and Condition Monitoring systems and shows the production availability in real time on the corporate web site. Each facility in the ARTIS model contains the history of its downtime events (whether planned or unplanned) and is colour coded to show its present state (up, on watch, down). This provides a birds-eye and top-down view for management and all staff and is the basis for tracking and corporate reporting of the achieved production availability, hydrocarbon loss accounting, target setting by asset and other relevant organisational units and maintenance planning and scheduling. It also provides a risk management tool and early warning system with a quantification (both risk and impact) of imminent threats to production availability.

ARTIS Live is unique in the market; it can monitor the impact of planned and unplanned downtime, capacity changes and all other critical events on the production availability of the integrated system, in real time. With ARTIS Live, the failure, maintenance, process upset and other critical events are tracked as time develops and these events are loaded automatically into the availability model. The availability model is then run to produce the results website, complete with hierarchical breakdowns and automatically generated charts.



The ARTIS V2.4 results website for a run of the demonstration model

For short term planning, the analysis takes on board the current state of the system and applies conditional probability methods to provide:

- a look-ahead of the quantified risks to the production availability
- an estimate of the vulnerability, at system level, to impending capacity and downtime losses
- a framework for optimising the maintenance and inspection scheduling
- a basis for immediate decisions and actions at the time that the events unfold, on mobilisation of backups and alternative supplies, mobilisation or rescheduling of maintenance and other mitigating short term measures

With ARTIS Live, SecuoS provides the means to take on board all risks to production availability and tie together the many elements of asset improvement programs that make the system work cohesively, provide that line of sight, and close the learning cycle, for all levels of Management and all Disciplines. It's main features are:

- a transparent connection to the bottom line, with the corporate production availability performance indicators linking directly to the volumes sold
- a full and top down hierarchical breakdown of the production availability indicators, consistent with the corporate targets
- clear and consistent reporting of these performance indicators, visible for everyone, complete with breakdowns and the impact of each event on the system

- full traceability and auditability of the underlying data
- an explicit connection between development projects and operations and maintenance improvement initiatives with their impact, at all levels, on the production availability as a solid basis for evaluating, ranking and measuring the value captured, consistently throughout time and with their impact on the bottom line
- a clear and agreed basis, throughout the organisation, for linking individual performance metrics and employee development plans to the production availability performance indicators

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