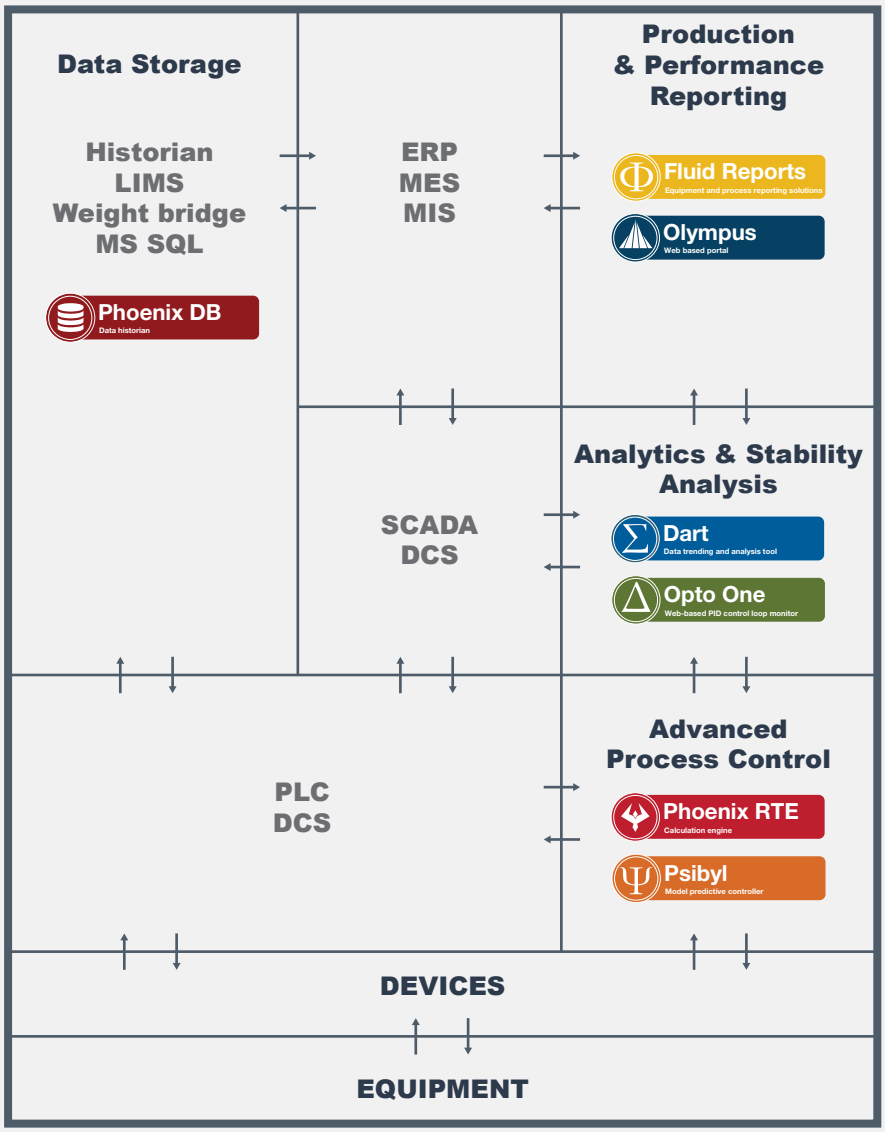
BLUE NICKEL
Unique solutions in the processing industry

www.bluenickel.co.za | info@bluenickel.co.za

product DESCRIPTION

The integrated Blue Nickel product suite provides a wide range of operational solutions.



Fluid Reports
Equipment and process reporting solutions

Opto One
Web-based PID control loop monitor

Dart
Data trending and analysis tool

Phoenix DB
Data historian

Phoenix RTE
Calculation engine

Psibyl
Model predictive controller

Olympus
Web based portal

Fluid Reports
(Production and performance monitoring)

Fluid Reports is a reporting tool specifically designed and built for the minerals processing industry. It connects to most available data sources on site and generate reports that can quickly identify sub-optimal process performance.

Reports can be emailed, published to a webpage or send to a phone as an SMS message or Yammer (cell phone application distributed by Microsoft).

OptoOne
(Control loop performance monitoring)

OptoOne is an automated web based application that monitors the performance of all PID control loops on a plant. This package makes it easy for an instrumentation technician to monitor performance of hundreds of control loops.

Control loop data gets analysed and processed in real-time so that a high level report allows the user rapid navigation to faulty control loops where diagnostics of the problematic control loops are available.

DART
(Data trending and query)

DART is a data trending and query tool. It connects to multiple data sources like the plant historian and lab database. Tags can easily be searched, added and removed to be either trended or saved to Excel.

DART makes it possible to quickly troubleshoot and identify process issues. A process tree is available to assist with navigation and finding tags quickly.

Phoenix Historian
(Data historian)

Data from the PLC or SCADA are stored at high frequency through an OPC connection.

DART is used by the end user to access data while a web service exposes data to be obtained programmatically.

Data backups and redundancy are inherited from the NoSQL backend.

Phoenix RTE
(Real-time engine for execution of controllers and calculations)

Phoenix RTE is a highly functional analytics engine. It is a web based interface that reads and writes to any data source. A live environment enables real-time monitoring of process and controller KPIs.

It performs complex calculations in real-time or process data in batches.

Phoenix RTE is ideal for implementation and monitoring of advanced control strategies.

PSIBYL
(Model Predictive Control and System Identification Tool)

Psibyl is a model predictive controller (MPC) and system identification tool. Model predictive control is the preferred controller technology for difficult to control processes. Psibyl's system identification component extracts dynamic process models which is then used in the MPC algorithm.

The MPC algorithm has some unique features tailored for process control like range control. Execution of the MPC controller is done from Phoenix RTE which makes it easy to incorporate any additional logic around the controller.

OLYMPUS

Olympus is an HTML5 web based portal that hosts the following Blue Nickel modules,
1. Phoenix RTE
2. Psibyl
3. OptoOne

The portal framework is ideal to host any web based application. Other web based applications that are typically accessed through Olympus are process and production reports that are executed through systems like SSRS and Tableau.