A comprehensive solution for the creation of Intelligent PFDs, P&IDs, Instrumentations (measurements, hook-ups & I/Os), Calculations (pump sizing & pipe sizing), Specifications (media & pipe) and Report generation like BOM, MTO and Datasheets. It has many built-in productivity tools such as Configurable & Automatic Tagging, ‘Symbol Editor’ to create new symbols, Construction sets, etc.
Spec-driven P&IDs:

- User can create intelligent P&IDs with attribute data such as Pipe specifications (media, pipe class, pipe runs, etc.)
- Comprehensive selection of symbol libraries & catalogs (as per EN, ISO10628, ANSI, ISA, etc.)
- ‘Symbol Editor’ to create new symbols (with process information)
- Placement of pre-defined assemblies i.e. Construction Set using ‘Drag & Drop’ feature for faster creation of P&IDs and reusability
- Configurable & Automatic Tagging and pipeline designations as per the standards
- Flow direction management and consistency checks
- Cross-reference feature for the creation of P&IDs across multiple drawings
- Pre-defined quality checks with ‘Logic Analyzer’ for connectivity checks and design rule checks to maintain consistency and quality
Built-in Instrumentation Capabilities:

- It links P&IDs with instrumentation details (e.g. field devices, instruments, signals, etc.)
- It has a provision to define the structure and interconnection of the individual components of an instrument (predefined as ‘Typical’)
- Once the measuring point is specified by the process engineer in a P&ID drawing, Instrumentation engineers assign ‘Typicals’
- User can create Hook-up drawings with BOM details
- Reports such as signal or I/O lists, measurement point lists, datasheets, etc. can be extracted from a P&ID drawing

Pipe Sizing & Pump Sizing Calculations:

- The Pipe Sizing calculation focuses on Pipe Internal Diameter Calculation of pipe, Pipe Thickness Calculation and Pressure Drop Calculation using ‘Resistance Factor’ method
- The User can determine the diameter of pipe based on flow and acceptable velocity of media
- The User can also select an appropriate pump with ‘Pump Sizing’ feature, which is based on flow rate, total differential head, discharge static head, suction static head, frictional head losses, pump power parameters, etc.
- Pump calculation automatically identifies suction and discharge side pipelines from P&ID based on the connection points

Effective Revision and Change Management:

- Quick change of primary objects in a P&ID drawing using ‘Exchange Graphics’ feature (all inline objects also get updated automatically)
- Save time by using ‘Mass Update’ functionality, wherein Data can be exported from CADISON in .CSV / XML format and import back with modifications
- Effective Revision Management of drawings and reports
Report Generation:

- Integrated Report Generator enables the user to generate various types of reports (like valve lists, equipment lists, measurement lists, pump datasheets, etc.)
- Easily create datasheets in .XLSX, PDF, word format using existing templates
- The User can pre-configure the report formats as per the company standards

Benefits:

- P&ID Designer Spec-driven solution for intelligent P&IDs and PFDs
- Engineering Solution with calculation capabilities (Pipe sizing & Pump sizing)
- Built-in Revision Management and Change Management for Error Free P&IDs
- Quick Project Planning & Cost Estimation with Reusability of P&ID data for future projects
- Reduction in ‘Check & Validation’ of drawing objects
- Report (configurable) generation capabilities
- Faster review and design approval process by Owner Operators
- Asset Information Management (for maintenance)
- Integration with 3D, Electrical Modules for design verification and visual inspection improves the consistency between P&ID, 3D and Schematics