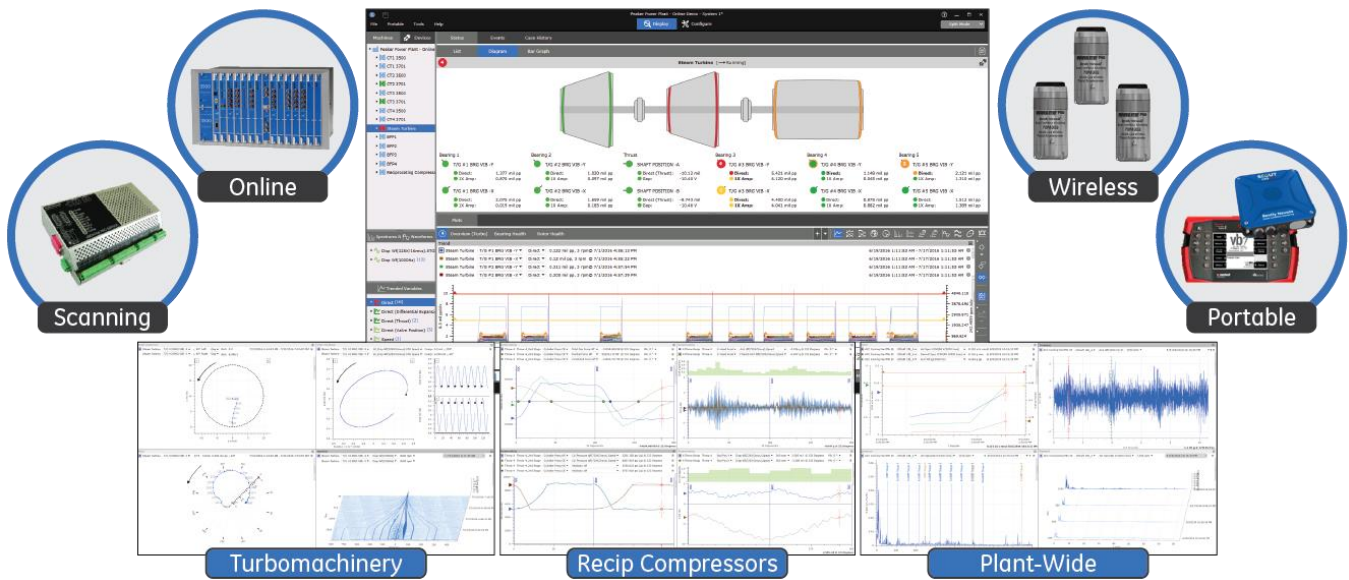


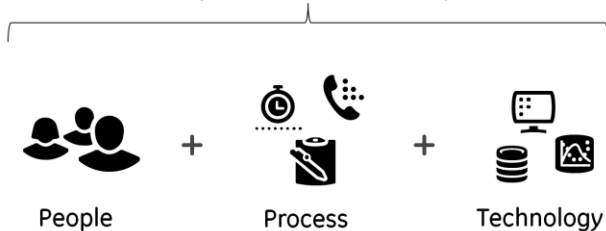


System 1 v18.2 Industrial Package

System 1 represents Bently Nevada’s flagship condition monitoring solution that seamlessly integrates with our industry leading products including online and portable devices. System 1 provides scalability by adapting to the condition monitoring requirements at your facility, as well as flexibility by connecting to any Bently Nevada’s field devices. Our products are designed for diverse applications and equipment failure modes at industrial facilities. We offer flexible packages ranging from portable to comprehensive plant-wide condition monitoring. We recommend understanding your equipment and defining your operation and maintenance goals first. Then, choose the software package and field devices that help you achieve those goals.



Keys to a Successful CM Program Bently Nevada Solution Scope



A successful condition monitoring program requires equipment knowledge including an understanding of failure modes and operational criticality, together with a cross functional team, process rigor, and enabling technologies. Bently Nevada offers flexible solutions ranging from product delivery and deployment services to supporting service agreements through which we partner with you to manage your condition monitoring program.

Package Ordering (Perpetual License)

Package	Online Continuous CM	Scanning & Process CM	Portable CM
Premium+	✓	✓	✓
Premium	✓	✓	
Advanced+		✓	✓
Advanced		✓	
Fundamental			✓

Industrial/Power Gen Packages Include

- ✓ Premium+ license(s)
- ✓ Unrestricted device import (Limits based on server)
- ✓ Unrestricted process data import (OPC DA)
- ✓ Unrestricted process data export (OPC DA)
- ✓ Unlimited Display Clients

Industrial/Power Gen Packages Do Not Include

- ✓ Database Replication
- ✓ Performance Monitoring

General Industrial Perpetual Package

3071/70 System 1 for Industrials – Perpetual
3071/70-AA-BB-CC

AA: Industry Type

- 01 – Pulp and Paper
- 02 – Air Separation
- 03 – Sugar Production
- 04 – Wastewater
- 05 – Drilling Rigs
- 06 – Steel Production
- 07 – Food & Beverage
- 08 – Manufacturing
- 09 – Pharmaceuticals
- 10 – Marine Vessel*

*Navy, Container Ship, LNG Transport, FSRU, etc.

NOT applicable for FPSO, FSO, or FLNG vessels

BB: Package Size

- 01 – Small Database
- 02 – Medium Database
- 03 – Large Database
- 04 – Extra Large Database

CC: Quantity of Server Licenses

– Numeric Entry [1→25]

Power Generation Perpetual Package

3071/80 System 1 for Power Generation – Perpetual

3071/80-AA-BB-CC

AA: Package Option

01 – New Order

02 – Expansion Order

BB: Plant Output (MW)

– Numeric Entry [1–30,000 MW]

CC: Quantity of Server Licenses

– Numeric Entry [1→25]

Database Replication

3071/16-AA-BB-CC System 1 Replication

AA: Tx Server(s) (License Value of Tx Server, # – 1→n)

- ✓ Conduit to move data to the business network
- ✓ Contains config info and connection to devices

BB: Rx Server(s) (Qty # – 1→n)

- ✓ Database mirroring S1 server on Plant Network
- ✓ Supports 80-90% of condition monitoring tasks

CC: Physical Installation Media

01 – No (Default)

02 – Yes

Performance Monitoring

3071/17-AA-BB-CC System 1 Performance

AA: Simplex Machines (Qty # – 1→n)

- ✓ Pump, Compressor, Steam Turbine, Fan, Expander, Generator, Heat Exchanger

BB: Complex Machines (Qty # – 1→n)

- ✓ Expander Recompressor, Gas Turbine, Side Stream Compressor

Counts per stage/casing

CC: S1 Servers with Performance (Qty # – 1→n)

Package Ordering (Subscription License)

We offer subscription licenses that include support for and updates to System 1. Software functionality is identical for perpetual and subscription licenses. Key structural differences exist between these license types:

Subscription License

- ✓ Smaller upfront investment (flat year-over-year OPEX)
- ✓ Subscription license fee includes support and updates.
- ✓ Software stops working if subscription is cancelled.

Perpetual License

- ✓ Larger upfront investment (one-time CAPEX)
- ✓ Must purchase support and updates (M&S) separately (lower OPEX than subscription)
- ✓ Software license does not expire. Support and updates cease if M&S is cancelled.

General Industrial Subscription Package

3072/70 System 1 for Industrials

3072/70-AA-BB-CC-DD-EE

AA: Purchase Type

- 01 – **New** (First Time Purchase)
- 02 – **Renewal**

BB: Term (Subscription Term in Years)

– **Numeric Entry** [3→5]

CC: Industry Type

- 01 – Pulp and Paper
- 02 – Air Separation
- 03 – Sugar Production
- 04 – Wastewater
- 05 – Drilling Rigs
- 06 – Steel Production
- 07 – Food & Beverage
- 08 – Manufacturing
- 09 – Pharmaceuticals

10 – Marine Vessel †

† Navy, Container Ship, LNG Transport, FSRU, etc.
Not applicable for FPSO, FSO, or FLNG type vessels

DD: Package Size

- 01 – Small Database
- 02 – Medium Database
- 03 – Large Database
- 04 – Extra Large Database

EE: Quantity of Server Licenses

– **Numeric Entry** [1→25]

Power Generation Subscription Package

3072/80 System 1 for Power Generation

3072/80-AA-BB-CC-DD-EE

AA: Purchase Type

- 01 – **New** (First Type Purchase)
- 02 – **Renewal**

BB: Term (Subscription Term in Years)

– **Numeric Entry** [3→5]

CC: Package Option

- 01 – New Order
- 02 – Expansion Order

DD: Plant Output (MW)

– **Numeric Entry** [1–30,000 MW]

EE: Quantity of Server Licenses

– **Numeric Entry** [1→25]

System 1 Wind Subscription Package

3072/84 System 1 for Wind

3072/84-AA-BB-CC-DD

AA: Purchase Type

- 01 – **New** (First Time Purchase)
- 02 – **Renewal**

BB: Term (Subscription Term in Years)

– **Numeric Entry** [1→20]

CC: MW Output of Wind farm

02 – Yes

– Numeric Entry [1→10000]

DD: Quantity of Server Licenses

– Numeric Entry [1→25]

Performance Monitoring

3072/17-AA-BB-CC System 1 Performance

Database Replication

3072/16-AA-BB-CC System 1 Replication

AA: License Value of Tx Server(s) (# – 1→n)

BB: Quantity of Rx Server Licenses (# – 1→n)

CC: Physical Installation Media

01 – No (Default)

AA: Simple Machines (Qty # – 1→n)

- ✓ Pump, Compressor, Steam Turbine, Fan, Expander, Generator, Heat Exchanger

BB: Complex Machines (Qty # – 1→n)

- ✓ Expander Recompressor, Gas Turbine, Side Stream Compressor

Counts per stage/casing

CC: S1 Servers with Performance (Qty # – 1→n)

Get Connected

3500 Device Series

3500 – Full Rack



/22, /25, /32, /33, /40, /42, /44, /45, /50, /60, /61, /64, /65 – *Standard & M series monitors*

- ✓ 14 monitor slots with simultaneous sampling
- ✓ 1 sec trend / 10 min waveform data capture
- ✓ High resolution alarm data capture
- ✓ High resolution startup/shutdown data capture

3500 – Mini Rack



Same monitors as Full Rack

- ✓ 7 monitor slots
- ✓ Same capabilities as Full Rack

TDI Secure [/42E /45E /PV]



Recommended for monitoring machines that cannot be natively connected to System 1 via standard devices (3rd party HW, Cyber, etc.)

- ✓ 24 Vib + 24 Process points + 4 Tachs

System 1 Classic Connector

System 1 Classic Connector

- ✓ Connect to legacy Bently Nevada Devices, including TrendMaster, TDXNet, 1701 FMIM

Condition Monitoring & Basic Protection

vbOnline* Pro Monitoring Device



- ✓ 12 simultaneous monitoring points + 2 tachs
- ✓ 30 sec trend / 10 min waveform data capture
- ✓ Simultaneous Alarm Snapshot (1 per 30 sec)

2300 Monitoring Device



- ✓ 2 simultaneous monitoring points + 1 tach
- ✓ 1 sec trend / 10 min waveform data capture

Distributed Device Series

ADAPT 3701 /40 /44 /46



- ✓ 12 simultaneous monitoring points + 2 Tachs
- ✓ 1 sec trend / 10 min waveform data capture
- ✓ High res alarm and SUSD data capture

Ranger Pro Device



- ✓ Single axis: 1 accel point + 1 temperature
- ✓ Triaxial: 3 accel points + 1 temperature point
- ✓ 10 min trend / 6 hour waveform data capture

Process Data

OPC DA Server Import



- ✓ Includes up to 6000 tags for a S1 Server
- ✓ 1 sec trend data capture

OPC DA Server Export



- ✓ Includes up to 10000 tags for a S1 Server
- ✓ 1 sec data export rate

Portables



Analyzers and data collectors with hazardous area approvals

- ✓ 2 and 4 Channel Models

Stay Current – Software Maintenance and Support (M&S)

System 1 Maintenance and Support provides access to the latest platform upgrades through a simplified web portal interface.

- ✓ 24/7 technical support (regional specialists)
- ✓ Access to the latest software releases
 - Operating system updates
 - Cyber security patches
 - User-driven feature additions

System 1 version 6.x and Ascent Customers with active M&S qualify for an upgrade to the latest System 1 platform at no additional cost. To receive an upgrade, include product 3071/65.

3071/20 System 1 Maintenance & Support

3071/20-AA-BB-CC-DD-EE-FF-GG-HH

AA: M&S Support Level

- 01 – **Basic** Support
- 02 – **Essential** Support
- 03 – **Premier** Support

BB: M&S Term

– **Numeric Entry** [1→20 years]

CC: System 1 Products Covered Under M&S Agreement

- 01 – **System 1 17.x** (3071 Family)
- 02 – **System 1 6.x** (3060 Family)

DD: Total System 1 Software License Price

Software value at customer site to be covered by M&S Agreement

– **Numeric Entry** [In Local Currency]

EE: Customer Activation Number (CAN)

– **Text Entry** [Ex: CAN1631]

FF: Software Contact First Name

– **Text Entry** [Ex: John]

GG: Software Contact Last Name

– **Text Entry** [Ex: Smith]

HH: Software Contact Email Address

– **Text Entry** [Ex: BentlyNevada@bhge.com]

II: M&S Order Type

- 01 – **New** [New Customer]
- 02 – **Renewal** [Returning M&S Customer]
- 03 – **Expansion** [Pre-Existing M&S Customer adding additional software]

System 1 Software Platform Upgrade

3071/65 System 1 Software Platform Upgrade

3071/65-AA-BB-CC-DD-EE-FF-GG-HH-II-JJ-KK-LL-MM

AA: Customer Activation Number (CAN)

– **Text Entry** [CAN#####]

BB: Software Package Upgraded

- 01 – **System 1 v6.x**
- 02 – **Ascent 2015**
- 02 – **ADAPT.Wind**

CC: New Software Package

- 01 – **Premium+** Package
- 02 – **Premium** Package
- 03 – **Advanced+** Package
- 04 – **Advanced** Package
- 05 – **Fundamental** Package
- 06 – **Power Generation** Package
- 07 – **Wind** Package

DD: Quantity of Display Clients

- 01 – **Single** Client Package

05 – **Small** Package [6 Clients]
10 – **Medium** Package [11 Clients]
15 – **Unlimited** Clients

EE: Quantity of Server Licenses (DAQs)

– **Numeric Entry** [1→n]

FF: Historical Data Migration

01 – **Yes** [System 1 v6.81+ & Ascent v2015]
02 – **No**

GG: Qty of 3500 Devices – Turbomachinery

– **Numeric Entry** [0→n]

HH: Qty of 3500 Devices – General Machines

– **Numeric Entry** [0→n]

II: Qty of 3500 Devices – Recip Machines

– **Numeric Entry** [0→n]

JJ: Qty of TDI Secure Devices

– **Numeric Entry** [0→n]

KK: Qty of OPC DA Import Licenses (1 per server)

– **Numeric Entry** [0→n]

LL: Qty of OPC DA Export Licenses (1 per server)

– **Numeric Entry** [0→n]

MM: Total Plant/ Wind Farm Output (Power Gen and Wind Only)

– **Numeric Entry** [1→n]

Specifications

Refer to System 1 Software Package Datasheet, document number **108M5214**, for additional information, including specifications, product capabilities, server options, and language packs.

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