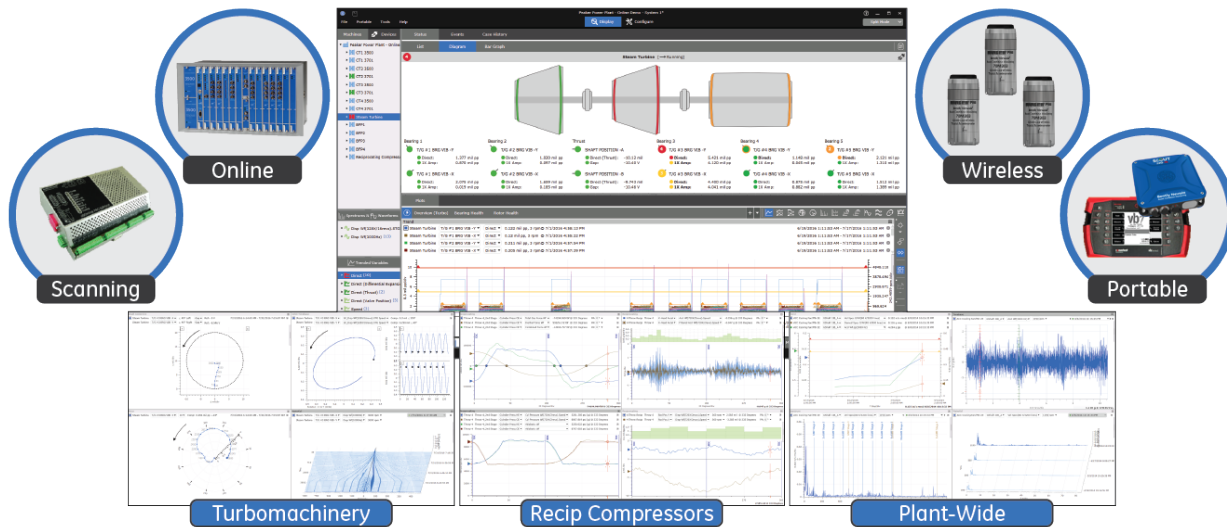
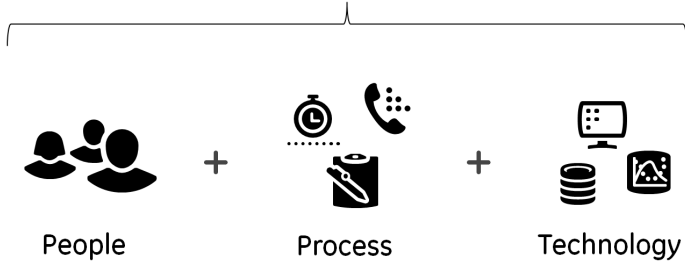


### System 1 v. 19.2

System 1 represents the Bently Nevada flagship condition monitoring solution, which 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 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.

# System 1 Package Ordering (Perpetual License)

Premium [Highly Critical]

3071/10 System 1 Software Premium  
 Package

3071/10-AA-BB-CC-DD

<b>A: Software Package</b>	
01	Premium Package
02	Premium+ Package
<b>B: Quantity of Display Clients</b>	
01	Single Client Package
05	Small Package [6 Clients]
10	Medium Package [11 Clients]
15	Unlimited Clients
<b>C: Quantity of Server Licenses</b>	
##	Numeric Entry [1→n]
<b>D: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian

Advanced [Critical]

3071/05 System 1 Software  
 Advanced Package

3071/05-AA-BB-CC-DD

<b>A: Software Package</b>	
01	Advanced Package
02	Advanced+ Package
<b>B: Quantity of Display Clients</b>	
01	Single Client Package

05	Small Package [6 Clients]
10	Medium Package [11 Clients]
15	Unlimited Clients
<b>C: Quantity of Server Licenses</b>	
##	Numeric Entry [1→n]
<b>D: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian

Fundamental [Less Critical]

3071/01 System 1 Software  
 Fundamental Package

3071/01-AA-BB-CC

<b>A: Quantity of Display Clients</b>	
01	Single Client Package
05	Small Package [6 Clients]
10	Medium Package [11 Clients]
15	Unlimited Clients
<b>B: Quantity of Server Licenses</b>	
##	Numeric Entry [1→n]
<b>C: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian

## Additional Details

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

### What are + packages?

Order the System 1 Premium+ and Advanced+ packages so that you can use portable data collectors in addition to the online devices.

### What is a System 1 Display Client?

A System 1 Display Client can connect to the System 1 Server residing locally on the same computer or remotely via network access. Local clients can have full access to the condition monitoring database. Remote clients can connect to a condition monitoring database only when direct or networked access to the server is available.

### What is a System 1 Server?

A System 1 Server may contain one or more condition monitoring databases accessible from one or more Display Clients. Historical data and configuration structure reside on the server. Hence, the databases are always available. Online data collection is restricted to a single database at a time.

## 3071/25 System 1 Expansion

### 3071/25-AA-BB-CC

A: Package Expansion	
00	None
01	Fundamental →Advanced+
02	Fundamental →Premium+
03	Advanced →Advanced+
04	Advanced →Premium
05	Advanced →Premium+
06	Advanced+ →Premium+
07	Premium → Premium+
B: Client Expansion	
00	None
05	+5 Clients
10	+10 Clients
15	+Unlimited Clients
C: Server License Expansion	
00	None
01	+Fundamental Server License
05	+Advanced Server License
10	+Premium Server License

## Language Packs

### 3071/91 System 1 Non-English Languages

#### 3071/91-AA

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<b>A: S1 Evolution Language Options</b>	
<b>01</b>	German v18.2
<b>02</b>	Simplified Chinese v19.1
<b>03</b>	Russian v19.1
<b>04</b>	Spanish v 19.1
<b>05</b>	Brazilian Portuguese v18.2
<b>06</b>	Japanese v18.2
<b>07</b>	French v16.2



What is a language option? System 1 supports multiple languages. The user interface appears in the chosen language. Newer versions of the software may include some English text.

We release Language Packs following the release of the System 1 software application. Please contact your Bently Nevada sales team for availability.

# Device Ordering (Perpetual License)


## 3500 Device Series

### 3071/11-AA-BB-CC-DD 3500 Series Device Import




Quantity (Qty) is the number of racks.


#### A: 3500 Devices - Turbomachinery

<b>Qty #</b>	0 → n
	Monitor turbomachinery. Also monitor general purpose machines when slots available in device.


#### B: 3500 Devices - General Machines

<b>Qty #</b>	0 → n
	Monitor general purpose machines. Also monitor turbomachinery or reciprocating compressors when SUSD data not required.

#### C: 3500 Devices - Recip Machines

<b>Qty #</b>	0 → n
	Monitor reciprocating compressors. Also monitor turbomachinery and general purpose machines when slots available in device.

#### D: TDI Secure Devices [/42E /45E /PV]

<b>Qty #</b>	0 → n
	Recommended for monitoring machines that cannot be natively connected to System 1 via standard devices (3rd party HW, Cyber, etc.) <ul style="list-style-type: none"> <li>24Vib + 24 Process points + 4 Tachs</li> </ul>

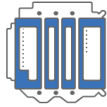
	Supported Monitors													Data						
Dash Option	/22 - TDI	/25 - KPH	/32 - Relay 4ch	/33 - Relay 16ch	/40 - TSI	/42 - Extended TSI	/44 - Aeroderivative	/45 - Position	/50 - Tachometer	/60, /61 - Temperature	/62 - Process Variable	/64 - Dynamic Pressure	/65 - Temperature 16 ch	/70 - Recip Impulse/Velocity	/72 - Recip Rod Drop/Position	/77 - Recip Cylinder Pressure	SUSD (Transient) Data	Alarm Data	Waveform Data	Trend (Steady-State) Data
<b>AA</b>	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x	x
<b>BB</b>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x
<b>CC</b>	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

**Table 1: (A-C Options) 3500 “Full” and “Mini” Racks**

## Distributed Device Series

### 3071/12-AA Distributed Device Import


#### A: ADAPT 3701 /40 /44 /46

<b>Qty #</b>	1 → n
	<ul style="list-style-type: none"> <li>12 simultaneous monitoring points + 2 Tachs</li> <li>1 sec trend / 10 min waveform data capture</li> <li>High res alarm and SUSD data capture</li> </ul>

## System 1 Classic Connector




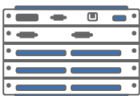

### 3071/60-AA System 1 Classic Connector

#### A: System 1 Classic Connector

<b>Qty #</b>	1 → n
	Connect to legacy Bently Nevada Devices, including Trendmaster, TDXNet, 1701 FMIM

## Condition Monitoring & Basic Protection


### 3071/13-AA-BB-CC-DD CM & Basic Protection Device

<b>A: vbOnline Pro Monitoring Device</b>	
<b>Qty #</b>	0 → n
	<ul style="list-style-type: none"> <li>• 12 simultaneous monitoring points + 2 tachs</li> <li>• 30 sec trend / 10 min waveform data capture</li> <li>• Simultaneous Alarm Snapshot (1 per 30 sec)</li> </ul>
<b>B: 2300 Monitoring Device</b>	
<b>Qty #</b>	0 → n
	<ul style="list-style-type: none"> <li>• 2 simultaneous monitoring points + 1 tach</li> <li>• 1 sec trend / 10 min waveform data capture</li> </ul>
<b>C: Ranger Pro Device</b>	
<b>Qty #</b>	0 → n
	<ul style="list-style-type: none"> <li>• Single axis: 1 accel point + 1 temperature</li> <li>• Triaxial: 3 accel points + 1 temperature point</li> <li>• 10 min trend / 6 hour waveform data capture</li> </ul>
<b>D: Trendmaster DSM and TIMs</b>	
<b>Qty #</b>	0 → n
	Network Cards <ul style="list-style-type: none"> <li>• 149776-01 10/100 base T</li> <li>• 149776-02 Fiber Optic</li> </ul> Signal Processing Adapter (SPA) Card
	<ul style="list-style-type: none"> <li>• ProTIM (Programmable Transducer Interface Module)               <ul style="list-style-type: none"> <li>• Accel to Velocity Point</li> <li>• Low Frequency Accel to Velocity Point</li> <li>• Rack Buffer Output ProTIM</li> <li>• Temperature Point: 2-3 wire Platinum RTD</li> <li>• Temperature Point: TC K Type</li> <li>• Speed Input: Keyphasor</li> </ul> </li> </ul>



- FlexiTIM
  - Accel to Velocity FlexiTIM
  - 100 Ohm Platinum RTD FlexiTIM
  - J TC FlexiTIM
  - K TC FlexiTIM

## Process Data

### 3071/14-AA Process Data Import



<b>A: OPC DA Server Import</b>	
<b>Qty #</b>	1 → n
	<ul style="list-style-type: none"> <li>• Includes up to 12000 tags for a S1 Server</li> <li>• Supports setpoints imported as OPC tags (Up to 48000 tags)</li> <li>• 1 sec trend data capture</li> </ul>

### 3071/15-AA-BB Process Data Export

<b>A: OPC DA Server Export (1 per server)</b>	
<b>Qty #</b>	1 → n
	<ul style="list-style-type: none"> <li>• Export static data via OPC DA protocol for online tags for a S1 server.</li> <li>• Export rates configurable by client.</li> </ul>
<b>B: OPC UA Server Export (Waveforms and Spectrums only)</b>	
<b>Qty #</b>	1 → n
	<ul style="list-style-type: none"> <li>• 10 minute intervals or at device rate interval</li> </ul>



## Database Replication

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

<b>A: Tx Server(s) (License Value of Tx Server</b>	
<b>##</b>	Numeric entry (in local currency)
	<ul style="list-style-type: none"> <li>Conduit to move data to the business network</li> <li>Contains config info and connection to devices</li> </ul>
<b>B: Rx Server(s)</b>	
<b>Qty #</b>	1 → n
	<ul style="list-style-type: none"> <li>Database mirroring S1 server on Plant Network</li> <li>Supports 80-90% of condition monitoring tasks</li> </ul>
<b>C: Database Management Option</b>	
<b>01</b>	Postgre (Recommended)
<b>02</b>	Proficy Historian

## Performance Monitoring



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

<b>A: Simple Machines</b>	
<b>Qty #</b>	0 → n
	<ul style="list-style-type: none"> <li>Pump, Compressor, Steam Turbine, Fan, Expander, Generator, Heat Exchanger</li> </ul>
<b>B: Complex Machines</b>	
<b>Qty #</b>	0 → n
	<ul style="list-style-type: none"> <li>Expander Recompressor, Gas Turbine, Side Stream Compressor               <ul style="list-style-type: none"> <li>Counts per stage/casing</li> </ul> </li> </ul>
<b>C: S1 Servers with Performance</b>	
<b>Qty #</b>	0 → n
<b>D: Predictive Emissions Monitoring System (PEMS)</b>	
<b>Qty #</b>	0 → n

## Decision Support

### 3071/51 AA-BB-CC System 1 Decision Support

**Available to order, but will ship in August 2020.**

<b>A: Core Package (n = max. number of packages)</b>	
<b>Qty #</b>	0 → n
	<p>Includes up to 40 rule results for a single System 1 database.</p> <p>Includes one Decision Support engine and rule writing capability for a single System 1 database.</p>
<b>B: Unlimited Package</b>	
<b>Qty #</b>	0 → n
	<p>Unlimited rule results for a single System 1 database</p> <p>Includes one Decision Support engine and rule writing capability for a single System 1 database.</p>
<b>C: Upgrade from Decision Support Core Package to Decision Support Unlimited Package</b>	
<b>Qty #</b>	0 → n

# System 1 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 cancelled.

## Premium [Highly Critical]

### 3072/10 System 1 Software Premium Package

3072/10-AA-BB-CC-DD-EE-FF

<b>A: Purchase Type</b>	
01	New (First Type Purchase)
02	Renewal
<b>B: Term (Subscription Term in Years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: Software Package</b>	

01	Premium Package
02	Premium + Package
<b>D: Quantity of Display Clients</b>	
01	Single Client Package
05	Small Package [6 Clients]
10	Medium Package [11 Clients]
15	Unlimited Clients
<b>E: Quantity of Server Licenses</b>	
##	Numeric Entry [1→n]
<b>F: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian

## Advanced [Critical]

### 3072/05 System 1 Software Advanced Package

3072/05-AA-BB-CC-DD-EE-FF

<b>A: Purchase Type</b>	
01	New (First Type Purchase)
02	Renewal
<b>B: Term (Subscription Term in Years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: Software Package</b>	
01	Advanced Package
02	Advanced+ Package
<b>D: Quantity of Display Clients</b>	
01	Single Client Package
05	Small Package [6 Clients]
10	Medium Package [11 Clients]
15	Unlimited Clients
<b>E: Quantity of Server Licenses</b>	
##	Numeric Entry [1→n]
<b>F: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian



## Fundamental [Less Critical]

### 3072/01 System 1 Software Fundamental Package

#### 3072/01-AA-BB-CC-DD-EE

<b>A: Purchase Type</b>	
01	New (First Type Purchase)
02	Renewal
<b>B: Term (Subscription Term in Years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: Quantity of Display Clients</b>	
01	Single Client Package
05	Small Package [6 Clients]
10	Medium Package [11 Clients]
15	Unlimited Clients
<b>D: Quantity of Server License</b>	
##	Numeric Entry [1→ n]
<b>E: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian

## 3072/25 System 1 Expansion - Subscription

#### 3072/25-AA-BB-CC-DD-EE

<b>A: Purchase Type</b>	
01	New (First Type Purchase)
02	Renewal
<b>B: Term (Subscription Term in Years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: Package Expansion</b>	
00	None
01	Fundamental → Advanced+
02	Fundamental → Premium+
03	Advanced → Advanced+
04	Advanced → Premium
05	Advanced → Premium+
06	Advanced+ → Premium+
07	Premium → Premium+
<b>D: Client Expansion</b>	
00	None
05	Small Package [6 Clients]
10	Medium Package [11 Clients]
15	Unlimited Clients
<b>E: Server License Expansion</b>	
00	None
01	Fundamental Server License
05	Advanced Server License
10	Premium Server License

## Language Packs

See part 3071/91 under "Perpetual" for ordering options

## 3500 Device Series

### 3072/11-AA-BB-CC-DD-EE-FF 3500 Series Device Import



**Quantity (Qty) is the number of racks.**

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Term (subscription term in years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: 3500 Devices - Turbomachinery</b>	
##	(Qty # 0→ n)
<b>D: 3500 Devices - General Machines</b>	
##	(Qty # 0→ n)
<b>E: 3500 Devices - Recip Machines</b>	
##	(Qty # 0→ n)
<b>F: TDI Secure Devices</b>	
##	(Qty # 0→ n)

## Distributed Device Series

### 3072/12-AA-BB-CC Distributed Device Import

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Term (subscription term in years)</b>	
##	Numeric Entry (1 →20 years)
<b>C: ADAPT Monitoring Devices</b>	
##	(Qty # 1→ n)

## System 1 Classic Connector

### 3072/60-AA-BB-CC System 1 Classic Connector

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Term (Subscription term in years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: System 1 Classic Connector</b>	
##	(Qty # 1→ n)  Connect to legacy Bently Nevada Devices, including TrendMaster, TDXNet, 1701 FMIM

## Condition Monitoring & Basic Protection

### 3072/13-AA-BB-CC-DD-EE-FF CM & Basic Protection Device

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Term (Subscription term in years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: vbOnline Pro Devices</b>	
##	(Qty #0→ n)
<b>D: 2300 Series Monitoring Devices</b>	
##	(Qty #0→ n)
<b>E: Ranger Pro Devices</b>	
##	(Qty #0→ n)
<b>F: Trendmaster DSM and TIMs</b>	
Qty #	0 → n

### 3072/14-AA-BB-CC Process Data Import

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Term (Subscription term in years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: OPC DA Server Import</b>	
##	(Qty #1→ n)

### 3072/15-AA-BB-CC-DD Process Data Export

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Term (Subscription in Years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: OPC DA Server Export</b>	
##	(Qty #1→ n)
<b>D: OPC UA Server Export</b>	
##	(Qty #1→ n)

## Database Replication

### 3072/16-AA-BB-CC-DD-EE System 1 Replication

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Term (Subscription term in years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: License Value of Tx Server(s)</b>	
##	(Qty # 1→n)
<b>D: Quantity of Rx Server Licenses</b>	
##	(Qty # 1→n)
<b>E: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian

## Performance Monitoring

### 3072/17-AA-BB-CC-DD-EE-FF System 1 Performance

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Term (Subscription term in years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: Simple Machines</b>	
##	(Qty # 0→ n) Pump, Compressor, Steam Turbine, Fan, Expander, Generator, Heat Exchanger
<b>D: Complex Machines</b>	
##	(Qty # 0→ n) Expander Recompressor, Gas Turbine, Side Stream Compressor Counts per stage/casing
<b>E: S1 Servers with Performance</b>	
##	(Qty # 0→ n)
<b>F: Predictive Emissions Monitoring System (PEMS)</b>	
Qty #	0 → n

## Cyber Asset Protection

### 3072/40- AA-BB-CC System 1 Cyber Asset Protection

<b>A: Antivirus Product</b>	
01	Symantec
02	McAfee
<b>B: CAP Servers</b>	
Qty #	1 → n
<b>C: Term (Subscription term in years)</b>	
##	Numeric Entry (1 → 20 years)

## Decision Support

### 3072/51 AA-BB-CC-DD-EE System 1 Decision Support

Available to order, but will ship August 2020.

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Terms (Years)</b>	
##	Numeric Entry (1 → 20 years)
<b>C: Core Package (n = max. number of packages)</b>	
Qty #	0 → n
	Includes up to 40 rule results for a single System 1 database. Includes one Decision Support engine and rule writing capability for a single System 1 database.
<b>D: Unlimited Package</b>	
Qty #	0 → n
	Unlimited rule results for a single System 1 database. Includes one Decision Support engine and rule writing capability for a single System 1 database.
<b>E: Upgrade from Decision Support Core Package to Decision Support Unlimited Package</b>	
Qty #	0 → n

# Industrial Packages

## Package Ordering (Perpetual License)

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

### Industrial/Power Gen Packages Include:

- Premium+ licenses (equals 3071/10-02)
- Unrestricted device import (equals 3071/11-AA-BB-CC-DD, 3071/12-AA, 3071/13-AA-BB-CC, 3071/60-AA)
- Unrestricted process data import (OPC DA - equals 3071/14-AA)
- Unrestricted process data export (OPC DA - equals 3071/15-AA)
- 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-DD

<b>A: Industry Type</b>	
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.

<b>B: Package Size</b>	
01	Small Database
02	Medium Database
03	Large Database
04	Extra Large Database

<b>C: Quantity of Server Licenses</b>	
###	Numeric Entry [1 →25]

<b>D: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian

## Power Generation Perpetual Package

3071/80 System 1 for Power Generation - Perpetual

3071/80-AA-BB-CC-DD

<b>A: Package Option</b>	
01	New Order
02	Expansion Order

<b>B: Plant Output (MW)</b>	
##	Numeric Entry [1 →30,000 MW]

<b>C: Quantity of Server Licenses</b>	
##	Numeric Entry [1 →25]

<b>D: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian

# 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

A: Purchase Type	
01	New (First time purchase)
02	Renewal
B: Term (Subscription Term)	
##	Numeric Entry [1→20 years]
C: 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

#### D: Package Size

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

#### E: 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

A: Purchase Type	
01	New (First time purchase)
02	Renewal
B: Term (Subscription term)	
##	Numeric Entry [1→ 20 years ]
C: Package Option	
01	New Order
02	Expansion Order
D: Plant Output (MW)	
##	Numeric Entry [1→30,000 MW]
E: 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

<b>A: Purchase Type</b>	
01	New (First time purchase)
02	Renewal
<b>B: Term (Subscription term in years)</b>	
##	Numeric Entry [1, 2, 3, 4 or 5]
<b>C: MW Output of Wind Farm</b>	
##	Numeric Entry [7→1000 MW]
<b>D: Quantity of Server Licenses</b>	
##	Numeric Entry [1→25]



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



## Software Maintenance and Support (M&S)

System 1 Maintenance and Support (M&S) 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.

## Maintenance and Support

### 3071/20 System 1 Maintenance & Support

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

<b>A: M&amp;S Support Level</b>	
00	Basic Support
01	Essential Support
02	Premier Support
	Anti-virus Option (only in Premier Support)
01	Symantec
02	McAfee
<b>B: M&amp;S Term</b>	
##	Numeric Entry (1 → 20 years)
<b>C: System 1 Products Covered under M&amp;S Agreement</b>	
01	System 1 (3071)
02	System 1 (3060)
03	Enterprise Impact
04	ADRE
<b>D: Total System 1 Software License Price</b>	
<i>Software value at customer site to be covered by M&amp;S Agreement</i>	
##	Numeric Entry [In Local Currency]
<b>E: Customer Agreement Number (CAN)</b>	
##	Text Entry (Ex: CAN1631)
<b>F: Software Contact First Name</b>	
##	Text Entry (Ex. John)
<b>G: Software Contact Last Name</b>	
##	Text Entry(Ex: Smith)
<b>H: Software Contact Email Address</b>	
##	Text Entry (Ex. John.smith@bently.com)
<b>I: M&amp;S Order Type</b>	
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-AA-BB-CC-DD-EE-FF-GG-HH-I I-JJ-KK-LL-MM-NN-OO-PP-QQ-RR-SS-TT-UU

<b>A: Customer Agreement Number (CAN)</b>	
##	Text entry [CAN#####]
<b>B: Software Package Upgrade</b>	
01	System 1 v6.x
02	Ascent 2015
03	ADAPT.Wind
<b>C: Package Expansion</b>	
01	Premium+
02	Premium
03	Advanced+
04	Advanced
05	Fundamental
06	Power Generation
07	Wind
<b>D: Quantity of Display Clients</b>	
01	Single client
05	Small package (6 clients)
10	Medium package (11 clients)
15	Unlimited Clients
<b>E: Quantity of Server Licenses (DAQs)</b>	
##	Numeric entry [1→n]
<b>F: Historical Data Migration</b>	
01	Yes [System 1 v6.81+ and Ascent v2015]
02	No
<b>G: Qty of 3500 Devices - Turbomachinery</b>	
##	Numeric entry [0→n]
<b>H: Qty of 3500 Devices - General Machines</b>	
##	Numeric entry [0→n]
<b>I: Qty of 3500 Devices - Recip Machines</b>	
##	Numeric entry [0→n]
<b>J: Qty of TDI Secure Devices</b>	
##	Numeric entry [0→n]

<b>K: Qty of OPC DA Import Licenses (1 per server)</b>	
##	Numeric entry [0→n]
<b>L: Qty of OPC DA Export Licenses (1 per server)</b>	
##	Numeric entry [0→n]
<b>M: Qty of ADAPT 3071/40, /44, /46 (equals 3071/12-AA)</b>	
##	Numeric entry [0→n]
<b>N: Qty of vbOnline Pro Monitoring Devices (equals 3071/13-AA)</b>	
##	Numeric entry [0→n]
<b>O: Qty of 2300 Monitoring Devices (equals 3071/13-BB)</b>	
##	Numeric entry [0→n]
<b>P: Qty of Ranger Pro Devices (equals 3071/13-CC)</b>	
##	Numeric entry [0→n]
<b>Q: Qty of Simple Machines (equals 3071/17-AA)</b>	
##	Numeric entry [0→n]
<b>R: Qty of Complex Machines (equals 3071/17-BB)</b>	
##	Numeric entry [0→n]
<b>S: Qty of Predictive Emissions Monitoring Systems (PEMS) (equals 3071/17-CC)</b>	
##	Numeric entry [0→n]
<b>T: Total Plant/ Wind Farm Output (Power Gen and Wind Only)</b>	
##	Numeric entry [1→n]
<b>U: Database Management Option</b>	
01	Postgre (Recommended)
02	Proficy Historian

# Servers

## System Ordering of Servers and Accessories<sup>1</sup>

### 3071/30 - Servers and Accessories

### 3071/30 - AA-BB-CC-DD-EE-FF-GG-HH-I

<b>A: Computers</b>	
00	None
##	Refer to table below
<b>B: Keyboards for Rack Servers</b>	
00	None
01	Compact KB with touchpad
03	Integrated keyboard drawer
<b>C: Monitors</b>	
00	None
03	22" Flat Panel
04	24" Flat Panel
05	27" Flat Panel
<b>D: Printers</b>	
00	None
01	HP Printer 110V B/W
02	HP Printer 110V Color
03	HP Printer 220V B/W
04	HP Printer 220v Color
<b>E: Time Synch <sup>2</sup></b>	
00	None
01	Client Software (one license)
10	Client SW & NTP Time Server <sup>2</sup>
20	IRIG-B Time Card <sup>2</sup>
<b>F: Uninterruptable Power Supply</b>	
00	None
01	110V Rack Mount
02	110V Tower
03	220V Tower

<b>G: Backup Devices</b>	
00	None
01	HP LTO Tape Drive
02	DELL LTO Tape Drive
<b>H: Remote Access</b>	
00	None
02	Parallels Remote App Server, 15 users + 5 years support
<b>I: RDS 5 CAL Packs (needed with Parallels)</b>	
##	Numeric Entry [1→n]



1

International Power Cord Part Numbers:

- 100M2829 Australia
- 285300 Brazil
- 100M2830 China/Argentina
- 288688 Europe
- 100M2831 India/South Africa
- 323596 UK/Saudi Arabia/Hong Kong



2

Some of the synch options have different export control than the servers, so must be ordered separately. For option 10, order 3071/30-EE-01 (Client SW) and parts 165764 (GPS Network Time Server) and 123M4605 (antenna). For option 20, order part 167114 (PCI IRIG Time Receiver).

## System Information Table

Type	Catalog Number	OEM	Model	Processor	RAID 1 Disk Space [GB]	RAID 5 Disk Space [TB]	RAM [GB]	BN Part #
Standard Server [Rack]	3071/30-A-01	HP	DL380 G10	4110 2.1 GHz	300	2.4	64	128M3395
	3071/30-A-02	Dell	R540	4110 2.1 GHz	300	2.4	64	128M3396
	3071/30-A-03	HP	DL380 G10	4110 2.1 GHz	300	3.6	64	110M2199
	3071/30-A-04	HP	DL380 G10	4110 2.1 GHz	300	6.0	64	110M2200
	3071/30-A-05	HP	DL380 G10	4110 2.1 GHz	300	10.8	64	110M2201
Standard Server [Tower]	3071/30-A-10	HP	ML350 G10	4110 2.1 GHz	300	2.4	64	128M3394
	3071/30-A-11	HP	ML350 G10	4110 2.1 GHz	300	3.6	64	110M2203
	3071/30-A-12	HP	ML350 G10	4110 2.1 GHz	300	6.0	64	110M2206
	3071/30-A-13	HP	ML350 G10	4110 2.1 GHz	300	10.8	64	110M2207
Light Server [Rack]	3071/30-A-20	HP	DL380 G10	3106 1.7 GHz	300	1.2	16	110M2198
Light Server [Tower]	3071/30-A-21	HP	ML110 G10	4110 2.1 GHz	300	1.2	16	110M2202
Workstation	3071/30-A-22	HP	HP Z4G4	W-2123 3.6 GHz	1000	-	16	02200478
Laptop	3071/30-A-23	HP	ZBOOK 15	i7-7700 2.8 GHz	1000	-	16	169849

### Recommendations:

<b>Standard Server</b>	Medium, large, or x-large Premium/ Advanced databases
<b>Light Server</b>	Fundamental installation or small Premium/ Advanced database
<b>Workstation</b>	Fundamental installation or Premium/ Advanced Client machine
<b>Laptop</b>	Fundamental installation

# Specifications

## System Specifications

Standard Server	Dual Intel Xeon 4110 8-Core, 2.1 GHz Processors -16 cores total, 32 logical processors 64 GB RAM or above Operating System Hard Disk: RAID 1 & 300 GB – 10000 RPM Historian Hard Disk: RAID 5 – 10,000 RPM DVD-RW
Light Server	Single Intel Xeon 4110 8-Core, 2.1 GHz Processor - 8 cores total, 16 logical processors 16 GB RAM or above Operating System Hard Disk: RAID 1 & 300 GB – 10,000 RPM Historian Hard Disk: RAID 5 & 1.2 TB– 10,000 RPM DVD-RW
Workstation	Intel Xeon W-2123 (3.6 GHz Processor) 16 GB RAM or above 1 GB Graphics Card 1 TB Hard Drive – 7200 RPM DVD-RW
Laptop	i7 – 7700HQ (2.8 GHz Processor) 16 GB RAM or above HD Graphics Card 1 TB Hard Drive – 7200 RPM DVD-RW
Virtualized Systems	Refer to Virtualized Systems Technical White Paper, document number 125M6425.
Network specification	Minimum 100 Mbps recommended
Supported Operating Systems	Microsoft Windows 2019 Server Standard Edition 64 bit Microsoft Windows 2016 Server Standard Edition 64 bit Microsoft Windows 2012 Server R2 Standard Edition 64 bit Microsoft Windows 2008 Server R2 Standard Edition 64 bit Microsoft Windows 7 SP1 64 bit † Microsoft Windows 8.1 Professional 64 bit † Microsoft Windows 10 Professional 64 bit (1803, 1809, 1903 )† † Recommended for Client †

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