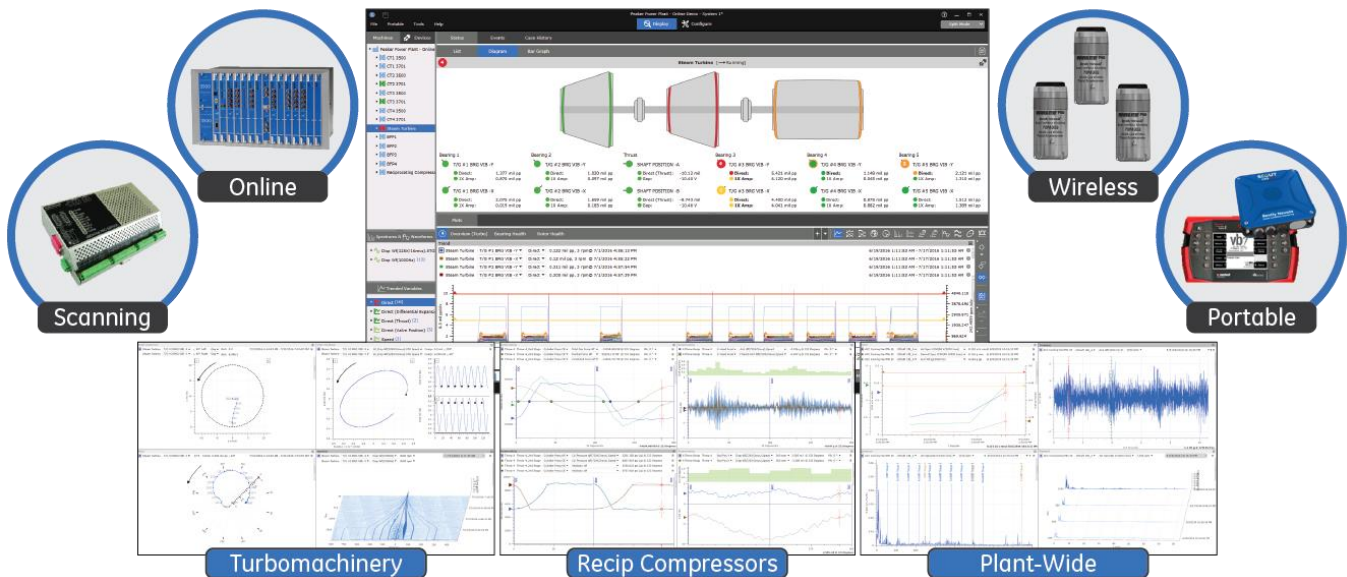




# System 1\* v18.2

## Product Datasheet

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.



# System 1 Package Ordering (Perpetual License)

## Premium [Highly Critical]

**3071/10** System 1 Software Premium Package  
3071/10-AA-BB-CC

**AA:** Software Package

- 01 – **Premium** Package
- 02 – **Premium+** Package

**BB:** Quantity of Display Clients

- 01 – **Single** Client Package
- 05 – **Small** Package [6 Clients]
- 10 – **Medium** Package [11 Clients]
- 15 – **Unlimited** Clients

**CC:** Quantity of Server Licenses

## – **Numeric Entry** [1→n]

## Advanced [Critical]

**3071/05** System 1 Software Advanced Package  
3071/05-AA-BB-CC

**AA:** Software Package

- 01 – **Advanced** Package
- 02 – **Advanced+** Package

**BB:** Quantity of Display Clients

- 01 – **Single** Client Package
- 05 – **Small** Package [6 Clients]
- 10 – **Medium** Package [11 Clients]
- 15 – **Unlimited** Clients

**CC:** Quantity of Server Licenses

## – **Numeric Entry** [1→n]

## Fundamental [Less Critical]

**3071/01** System 1 Software Fundamental Package  
3071/01-AA-BB

**AA:** Quantity of Display Clients

- 01 – **Single** Client Package
- 05 – **Small** Package [6 Clients]
- 10 – **Medium** Package [11 Clients]
- 15 – **Unlimited** Clients

**BB:** Quantity of Server Licenses

## – **Numeric Entry** [1→n]

## Language Packs

**3071/91** System 1 Non-English Languages  
3071/91-AA

**AA:** S1 Evolution Language Options<sup>1</sup>

- 01 – **German** v18.1
- 02 – **Simplified Chinese** v18.1
- 03 – **Russian** v18.1
- 04 – **Spanish** v18.1
- 05 – **Brazilian Portuguese** v18.1
- 06 – **Japanese** v16.2
- 07 – **French** v16.2

### (AA) 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.

## 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.

# Get Connected – Device Ordering (Perpetual License)

## 3500 Device Series

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

#### AA: 3500 Devices - Turbomachinery (Qty #1→n)



Monitor turbomachinery. Also monitor general purpose machines when slots available in device.

#### BB: 3500 Devices - General Machines (Qty #1→n)



Monitor general purpose machines. Also monitor turbomachinery or reciprocating compressors when SUSD data not required.

#### CC: 3500 Devices - Recip Machines (Qty #1→n)



Monitor reciprocating compressors. Also monitor turbomachinery and general purpose machines when slots available in device.

(AA-CC) 3500 "Full" and "Mini" Racks

	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
AA	x	x	x	x	x	x	x	x	x	x	x	x	x				x	x	x	x
BB	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x
CC	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

#### DD: TDI Secure Devices [/42E /45E /PV] (Qty # - 1→n)



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

## Distributed Device Series

### 3071/12-AA Distributed Device Import

#### AA: ADAPT 3701 /40 /44 /46 (Qty # - 1→n)



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

## System 1 Classic Connector

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

#### AA: System 1 Classic Connector (Qty # - 1→n)

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

## Condition Monitoring & Basic Protection

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

#### AA: vbOnline\* Pro Monitoring Device (Qty # - 1→n)



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

#### BB: 2300 Monitoring Device (Qty # - 1→n)



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

#### CC: Ranger Pro Device (Qty # - 1→n)



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

## Process Data

### 3071/14-AA Process Data Import

#### AA: OPC DA Server Import (Qty # - 1→n)



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

### 3071/15-AA Process Data Export

#### AA: OPC DA Server Export (Qty # - 1→n)



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

## 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: 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)

# 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 – **Gold** Support
- 02 – **Platinum** 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 Name

## – **Text Entry** [Ex: Bently Nevada]

**GG:** Software Contact Email Address

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

**HH:** 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 & Ascent 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**

**CC:** New Software Package

- 01 – **Premium+** Package
- 02 – **Premium** Package
- 03 – **Advanced+** Package
- 04 – **Advanced** Package
- 05 – **Fundamental** Package
- 06 – **Power Generation** 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** [1→n]

**HH:** Qty of 3500 Devices - General Machines

## – **Numeric Entry** [1→n]

**II:** Qty of 3500 Devices - Recip Machines

## – **Numeric Entry** [1→n]

**JJ:** Qty of TDI Secure Devices

## – **Numeric Entry** [1→n]

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

## – **Numeric Entry** [1→n]

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

## – **Numeric Entry** [1→n]

**MM:** Plant Design Output (Power Generation Package Only)

## – **Numeric Entry** [1→n]

# System 1 Package Ordering (Subscription License)

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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

**AA:** Purchase Type

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

**BB:** Term (Subscription Term in Years)

## – **Numeric Entry** [3→5]

**CC:** Software Package

- 01 – **Premium** Package
- 02 – **Premium+** 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

## – **Numeric Entry** [1→n]

## Advanced [Critical]

**3072/05** System 1 Software Advanced Package  
3072/05-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:** Software Package

- 01 – **Advanced** Package
- 02 – **Advanced+** 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

## – **Numeric Entry** [1→n]

---

## Fundamental [Less Critical]

**3072/01** System 1 Software Fundamental Package  
3072/01-AA-BB-CC-DD

**AA:** Purchase Type

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

**BB:** Term (Subscription Term in Years)

## – **Numeric Entry** [3→5]

**CC:** Quantity of Display Clients

- 01 – **Single** Client Package
- 05 – **Small** Package [6 Clients]
- 10 – **Medium** Package [11 Clients]
- 15 – **Unlimited** Clients

**DD:** Quantity of Server Licenses

## – **Numeric Entry** [1→n]

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## Language Packs

Same as for Perpetual (3071/91)

# Get Connected – Device Ordering (Subscription License)

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## 3500 Device Series

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

**AA:** 3500 Devices - Turbomachinery (Qty #1→n)

**BB:** 3500 Devices - General Machines (Qty #1→n)

**CC:** 3500 Devices - Recip Machines (Qty #1→n)

**DD:** TDI Secure Devices (Qty # - 1→n)

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## Distributed Device Series

### 3072/12-AA Distributed Device Import

**AA:** ADAPT Monitoring Devices (Qty # - 1→n)

---

## System 1 Classic Connector

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

**AA:** System 1 Classic Connector (Qty # - 1→n)

---

## Condition Monitoring & Basic Protection

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

**AA:** vbOnline\* Pro Devices (Qty # - 1→n)

**BB:** 2300 Monitoring Devices (Qty # - 1→n)

**CC:** Ranger Pro Devices (Qty # - 1→n)

---

## Process Data

### 3072/14-AA Process Data Import

**AA:** OPC DA Server Import (Qty # - 1→n)

### 3072/15-AA Process Data Export

**AA:** OPC DA Server Export (Qty # - 1→n)

---

## 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)**

02 – **Yes**

---

## Performance Monitoring

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

**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)

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## General Capabilities

### Distributed Client/Server Deployment

- ✓ TCP/IP Client to Server Communication (Ports 7550 and 7551)
- ✓ Clients can connect to **five** different condition monitoring databases simultaneously on a server. (One **Online** database per server + **Offline** Databases)
- ✓ System performance tested with 5 simultaneous client connections to one online database

### Data Replication

- ✓ Access System 1 on the business network by replicating data across a data diode or firewall.
- ✓ Reduce Cyber Security risks to an acceptable level.

### User Security Profiling

- ✓ Leverages Windows® Domain and local accounts
- ✓ Administrator Profile (Read, Write, Database Management)
- ✓ Advanced Profile (Read, Write)
- ✓ Basic Profile (Read Only)

### Database & Server Capacity

- ✓ System 1 Server can run one Online (Premium or Advanced) condition monitoring database connected to supported online devices.
- ✓ The System 1 Server can contain multiple offline (Fundamental) databases in addition to the online database.
- ✓ Each condition monitoring database can contain a maximum of 2000 pieces of equipment. (Motor + Pump = 2)
- ✓ Embedded GE Historian for data storage and management
- ✓ Edit Trend, Alarm, and Transient Data Store sizes and monitor health over time to avoid losing data.

### Display Unit Preferences

Effortlessly switch between **As Configured**, Imperial, and SI unit systems from Display.

## System Specifications

### Standard Server

Intel Xeon® 4110 8-Core® (2.1 GHz Processor)  
64 GB RAM or above  
Operating System Hard Disk: RAID 1 & 300 GB – 10000 RPM  
Historian Hard Disk: RAID 5 (see Table 3) – 10,000 RPM  
DVD-RW

### Light Server

Intel Xeon® 4110 8-Core® (2.1 GHz Processor)  
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 technical white paper<sup>2</sup>

### Supported Operating Systems

Microsoft Windows® 2016 Server Standard Edition 64 bit  
Microsoft Windows® 2012 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 Professional 64 bit †  
Microsoft Windows® 8.1 Professional 64 bit †  
*Microsoft Windows® 10 Professional 64 bit † (1809, 1803, 1709)*  
† Recommended for Client

### Network specification

Minimum 100 Mbps recommended

# System Ordering

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## Servers and Accessories<sup>4</sup>

### 3071/30 - Servers and Accessories

#### AA: Computers

00 - **None**

## - **Refer to table below**

#### BB: Keyboards for Rack Servers

00 - **None**

01 - **Compact KB with touchpad**

03 - **Integrated keyboard drawer**

#### CC: Monitors

00 - **None**

03 - **22" Flat Panel**

04 - **24" Flat Panel**

05 - **27" Flat Panel**

#### DD: Printers

00 - **None**

01 - **HP<sup>®</sup> Printer 110V B/W**

02 - **HP<sup>®</sup> Printer 110V Color**

03 - **HP<sup>®</sup> Printer 220V B/W**

04 - **HP<sup>®</sup> Printer 220v Color**

#### EE: Time Synch (see footnote)

00 - **None**

01 - **Client Software (one license)**

10 - **Client SW & NTP Time Server<sup>3</sup>**

20 - **IRIG-B Time Card<sup>3</sup>**

#### FF: Uninterruptable Power Supply

00 - **None**

01 - **110V Rack Mount**

02 - **110V Tower**

03 - **220V Tower**

#### GG: Backup Devices

00 - **None**

01 - **HP<sup>®</sup> LTO Tape Drive**

02 - **DELL<sup>®</sup> LTO Tape Drive**

#### HH: Remote Access

00 - **None**

02 - **Parallels Remote App Server, 15 users + 5 years support**

#### II: RDS 5 CAL Packs (needed with Parallels)

## - **Numeric Entry [1→n]**



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:

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

# System 1 Software Capability Comparison

General Connectivity	Status	Premium+	Premium	Advanced+	Advanced	Fundamental	Basic
<b>Device Support</b>							
3500	✓ Complete	✓	✓				✓
3701	✓ Complete	✓	✓				✓
TDI Secure	✓ Complete	✓	✓				✓
vbOnline* Pro	✓ Complete	✓	✓	✓	✓		
2300	✓ Complete	✓	✓	✓	✓		
OPC DA Import/Export	✓ Complete	✓	✓	✓	✓		
OPC UA Import/Export	📖 19.2						
SCOUT* 100 Series	✓ Complete	✓		✓		✓	
SCOUT* 200 Series	✓ Complete	✓		✓		✓	
Enterprise Impact	✓ Complete	✓	✓	✓	✓	✓	
S1 6.X Connector P2	✓ P2 Complete	✓	✓	✓	✓		
.csv Import	📖 Future						
Modbus Import	📖 Future						
<b>Bently Machine Library</b>							
Compressors (Axial, Centrifugal)	✓ Complete	✓	✓	✓	✓	✓	
Compressors (Reciprocating)	✓ Complete	✓	✓	✓	✓	✓	
Fans	✓ Complete	✓	✓	✓	✓	✓	
Gas Turbines (Aero, Industrial)	✓ Complete	✓	✓	✓	✓	✓	
Gearbox (Wind Turbine, Configurable)	✓ Complete	✓	✓	✓	✓	✓	
Generators	✓ Complete	✓	✓	✓	✓	✓	
Generic Machine	✓ Complete	✓	✓	✓	✓	✓	
Motors	✓ Complete	✓	✓	✓	✓	✓	
Pumps (Between Bearings, Overhung)	✓ Complete	✓	✓	✓	✓	✓	
Steam Turbines	✓ Complete	✓	✓	✓	✓	✓	
<b>User Machine Templates</b>							
Machine Templates	✓ Complete	✓	✓	✓	✓	✓	
Machine + Device Templates	📖 19.2						
Template Import/Export	📖 19.2						
<b>General Configuration</b>							
Device Point to Equipment Mapping	✓ Complete	✓	✓	✓	✓	✓	
Copy/Cut/Paste	✓ Complete	✓	✓	✓	✓	✓	
Config Import/Export	✓ Complete	✓	✓	✓	✓	✓	
Display Based Configuration	📖 Future						
Linear Speed Support	📖 19.2						
User Defined (Bearings, Sensors, FF)	📖 Future						
Undo/Redo In Configuration	📖 Future						
File Based Configuration	📖 Future						

Detection	Status	Premium +	Premium	Advanced +	Advanced	Fundamental	Basic
<b>Machine State Configuration</b>							
Machine States	✓ Complete	✓	✓	✓	✓		
Turbo Quick Configuration	✓ Complete	✓	✓	✓	✓		
Machine States for Offline (Portables)	📄 Future						
<b>Measurement Configurations</b>							
TA Proven Method 4th Edition	✓ Complete	✓		✓		✓	
Measurement Quick Configuration	✓ Complete	✓		✓		✓	
<b>Data Extractions</b>							
Spectral Bands	✓ Complete	✓	✓	✓	✓		
Waveform pk-pk	✓ Complete	✓	✓	✓	✓	✓	
Sideband Energy Ratio	✓ Complete	✓	✓	✓	✓	✓	
Fault Specific Bands	✓ P1 Complete	✓	✓	✓	✓	✓	
Dynamic Energy Index	📄 Future						
Software Generated Speed	📄 Future						
Simple Math (+,-,/,*) P1	📄 Future						
Complex Transformation	📄 Future						
<b>Alarm Generation</b>							
State-Based Alarming	✓ Complete	✓	✓	✓	✓		
Alarm Quick Configuration from Statistics	✓ Complete	✓	✓	✓	✓	✓	
Designed Suppression	✓ Complete	✓	✓	✓	✓		
Time Delay	📄 19.1						
Alarm Latching	📄 19.1						
Change Detection Alarming	📄 Future						
Spectral Envelope Alarming	📄 Future						
SUSD Anomaly Alarm	📄 Future						

Notification	Status	Premium +	Premium	Advanced +	Advanced	Fundamental	Basic
<b>External Notification</b>							
Email Notification	✓ Complete						
S1 Mobile	📄 Future						
<b>Status</b>							
List View	✓ Complete	✓	✓	✓	✓	✓	✓
Bar Graphs	✓ Complete	✓	✓	✓	✓	✓	✓
Configurable Machine Diagrams	✓ Complete	✓	✓	✓	✓	✓	
<b>Events</b>							
Alarm List	✓ Complete	✓	✓	✓	✓	✓	✓
System Health List	✓ Complete	✓	✓	✓	✓	✓	✓
Alarm Acknowledgment	✓ Complete	✓	✓	✓	✓	✓	✓
Event Count	📄 Future						
User Enabled Shelving	📄 19.2						
State Event List	📄 Future						
Export to .csv	✓ Complete						

Machinery Diagnostics	Status	Premium +	Premium	Advanced +	Advanced	Fundamental	Basic
<b>Turbomachinery</b>							
Bode Plot	✓ Complete	✓	✓	✓	✓		
Polar Plot	✓ Complete	✓	✓	✓	✓		
Shaft Centerline Plot	✓ Complete	✓	✓	✓	✓		
Cascade Plot (3D)	✓ Complete	✓	✓	✓	✓		
Full Cascade	✓ Complete	✓	✓	✓	✓		
Full Waterfall	✓ Complete	✓	✓	✓	✓		
Startup/Shutdown Navigation	✓ Complete	✓	✓	✓	✓		
Compensation	✓ Complete	✓	✓	✓	✓		
Acceptance Region Visualization	✓ Complete	✓	✓	✓	✓		
Performance Maps	📖 19.1						
<b>Recip Compressors</b>							
Reciprocating (Crank Angle) Plot	✓ Complete	✓	✓				
Adiabatic Curve Overlay	✓ Complete	✓	✓				
Recip Waterfall Plot	✓ Complete	✓	✓				
Rod Position Plot	✓ Complete	✓	✓				
<b>Less Critical (Fans, pumps...)</b>							
Delete Data	✓ Complete	✓		✓		✓	
Move Data	✓ Complete	✓		✓		✓	
Circular Plot	📖 Future						
<b>General Diagnostics</b>							
Multi-Variable Trend	✓ Complete	✓	✓	✓	✓	✓	✓
Waveform Plot	✓ Complete	✓	✓	✓	✓	✓	✓
Orbit Plot	✓ Complete	✓	✓	✓	✓	✓	
Waterfall Plot (3D)	✓ Complete	✓	✓	✓	✓	✓	
State Setpoint Visualization	✓ Complete	✓	✓	✓	✓		
Bently Machine Plot Sets	✓ Complete	✓	✓	✓	✓	✓	
Plot Invalid Data Filter	✓ Complete	✓	✓	✓	✓		
Multi-Window Plotting	📖 19.1						
Color Plot Data by State	📖 19.1						
Filtering Plot Data by State	📖 19.2						
<b>Plot Tools</b>							
Synchronized Cursors/Scales	✓ Complete	✓	✓	✓	✓	✓	
Link Cursors to Samples	✓ Complete	✓	✓	✓	✓	✓	
Cursors (Harmonics, Sidebands, Micro)	✓ Complete	✓	✓	✓	✓	✓	
Spectral Band Bar Graphs	✓ Complete	✓	✓	✓	✓	✓	
Fault Frequency Overlays	✓ Complete	✓	✓	✓	✓	✓	
Time Range Control	✓ Complete	✓	✓	✓	✓	✓	
Plot Play	📖 Future						
Plot Annotation	📖 Future						
Plot Scaling (Manual)	📖 19.1						
Data Export	📖 19.1						

Case History and Reporting	Status	Premium +	Premium	Advanced +	Advanced	Fundamental	Basic
Machine Health Reviews	✓ Complete	✓	✓	✓	✓	✓	
Condition Monitoring Notes	✓ Complete	✓	✓	✓	✓	✓	
Plot Records	✓ Complete	✓	✓	✓	✓	✓	
Comparison (Reference) Data	✓ Complete	✓	✓	✓	✓	✓	
Multi-Media Notes	📖 19.2						
Diagnostic Report Customization	📖 Future						

Database Management	Status	Premium +	Premium	Advanced +	Advanced	Fundamental	Basic
<b>Data Collection &amp; Storage</b>							
Trend Data	✓ Complete	✓	✓	✓	✓	✓	
Alarm Data	✓ Complete	✓	✓	✓	✓		
Transient Data	✓ Complete	✓	✓	✓	✓		
Online & Offline Database Support	✓ Complete	✓	✓	✓	✓		
Enhanced Data Store	📖 Future						
<b>Database Manager</b>							
Basic Management (Rename, Delete)	✓ Complete	✓	✓	✓	✓	✓	
Backup/Restore	✓ Complete	✓	✓	✓	✓	✓	
Data Store Configurability	✓ Complete	✓	✓	✓	✓		
Machine Audit File	✓ Complete	✓	✓	✓	✓	✓	
Complete Database Archive	📖 Future	✓	✓	✓	✓	✓	
<b>Data Migration</b>							
S1 6.81+ DB Migration	✓ Complete	✓	✓				
Ascent* 2015 DB Migration	✓ Complete	✓		✓		✓	
ADAPT.wind DB Migration	📖 Future						
<b>Database Access</b>							
Client/Server Deployment	✓ Complete	✓	✓	✓	✓	✓	
Simultaneous Database Access	✓ Complete	✓	✓	✓	✓	✓	
Open Multiple DBs in Single Client	📖 Future						

General Application	Status	Premium +	Premium	Advanced +	Advanced	Fundamental	Basic
<b>Preferences</b>							
Display Units	✓ Complete	✓	✓	✓	✓	✓	✓
Cursors (# of Harmonics, Sidebands)	✓ Complete	✓	✓	✓	✓	✓	✓
Waveform (Filter, # Revs)	✓ Complete	✓	✓	✓	✓	✓	✓
Machine Criticality Naming	📖 Future						
Alarm Levels (Colors, Numbering)	📖 Future						
Plot Curve Colors	📖 Future						
Adaptive Profiles	📖 19.2						
<b>Cyber Security</b>							
User Security	✓ Complete	✓	✓	✓	✓	✓	
Code Obfuscation	✓ Complete	✓	✓	✓	✓	✓	✓
Licensing	✓ Complete	✓	✓	✓	✓	✓	✓

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## Footnotes

1. We release language packs approximately one to two months following the release of System 1\* application.
2. Refer to Virtualized Systems Technical White Paper, document number 125M6425.
3. Synch options sometimes have different export control than the servers. They must be ordered separately.  
For option 10, order 3071/30-EE-01 (Client SW) and parts 165764, 123M6504 and 123M6505, which are components of the GPS Network Time Server.  
For option 20, order part 167114 – PCI IRIG Time Receiver separately.
4. International Power Cord Part Numbers:

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

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