

## REAL TIME WIRELESS SENSOR NETWORKS (WSN) SUPERVISION & CONTROL MONITOR

### //BEANSCAPE SOFTWARE



### FEATURED VIDEO



[Click here to see the BeanScape video](#)

### USER MANUAL



[BeanScape® user manual](#)

### FFT ( FAST FOURIER TRANSFORM) MODULE



[Click here to see the tutorial video](#)

**SCIENCE  
GATE**  
Your Automation Partner



**SCIGATE AUTOMATION (S) PTE LTD**

No.1 Bukit Batok Street 22 #01-01 Singapore 659592

Tel: (65) 6561 0488

Fax: (65) 6562 0588

Email: sales@scigate.com.sg

Web: www.scigate.com.sg

Business Hours: Monday - Friday 8.30am - 6.15pm

### //MAIN FEATURES



- Supervision software fully dedicated to Beanair® Wireless Sensor Networks
- Fully integrated Wireless Sensor Networks maintenance tool
- Easy integration to a third-party supervision software thanks to our OPC server
- User friendly and highly adaptable to user's environment
- Highly intuitive and easy to use GUI (Graphical User Interface)
- Real time integrated database
- Simultaneous multi WSN handling (can be connected to several BeanGateway®)
- Highly customizable data panel board
- Several versions are available:
  - o **BeanScape® Manager**: free of cost WSN supervision software, without Real-time Graph
  - o **BeanScape® Basic**: with Real-time Graph, can manage one WSN
  - o **BeanScape® Premium**: same features than BeanScape® Basic, can manage several WSN
  - o **BeanScape® Premium+**: same features than BeanScape® Premium and integrates a \*.NET OPC server for an easy integration with a third-party supervision software
  - o **BeanScape® Cloud**: same features than BeanScape Premium+ and multi-user access.

//A CORE FULLY DEDICATED TO WSN SUPERVISION



//REAL TIME & FULLY INTEGRATED DATA BASE

The real time database records high sampling measurement plots and WSN activities with a small memory footprint :

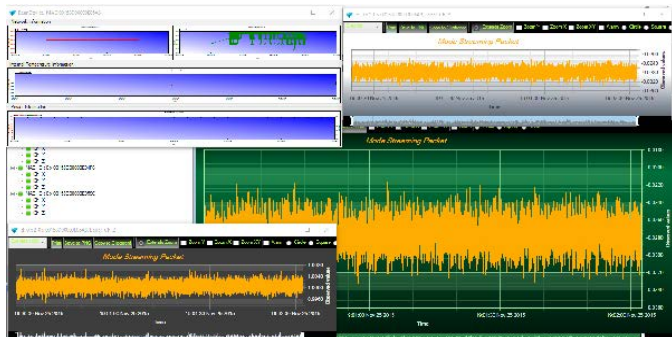
- No installation is needed
- Data backup (activable/disactivable functionality).
- Easily exportable data in CSV format (Access, Excel, Matlab, Labview...).
- WSN mapping can be exported and imported on different BeanScape® software

//SOPHISTICATED AND INTUITIVE GUI

The BeanScape® offers a complete and intuitive real time view of our Wireless Sensor Networks :

- Detailed and efficient viewset representing different alarm levels (4 different customizable alarm thresholds high/low)
- Automatic alarm diagnostics generated by BeanAir®'s expert system
- Highly customizable GUI allowing the user to name and rename components and to associate metrics (in case of sensors)
- Highly configurable data panel and multi-chart board.

//ACTIVE SUPERVISION & MONITORING SYSTEM



The **BeanScape®** is an active monitoring system which allows a remote configuration of each and every component part of the wireless sensor network :

- Data acquisition configuration: Data acquisition mode, sampling frequency and duration, sleeping mode cycle.
- Alarm notification by email when a measurement threshold is reached
- Power supply management
- Switch to manual or automatic radio channel with «Energy Scan» functionality (automatic setting to the best available radio channel)
- Sensor calibration interface
- Radio transmission configuration
- Global or partial network maintenance
- Visualization of all the information relative to the wireless sensor networks performance: radio signal quality, PER ( Packet Error Rate)
- Battery diagnosis: battery level, battery voltage internal temperature,
- FFT (Fast Fourier transform) waveform analysis module

// BEANSCAPE MANAGER : COST-FREE & ECO-FRIENDLY WSN CONFIGURATOR

BeanScape® Manager is suitable for users looking for configuring Beanair WSN:

- Fully integrated Wireless Sensor Networks Maintenance and Installation Tool
- User Friendly and highly adaptable to user's environment
- Real-time integrated Database
- ModBus TCP/RS232/RS485 configurator (available only for the BeanGateway® ModBus version)
- Data logging on CSV file

The BeanScape® Manager is free of cost, and already includes 1 month of technical support.

User looking for real-time data visualization, multi-WSN supervision software, longer technical support and a full compatibility with a third-party supervision software, can migrate to the BeanScape® Basic, Premium and Premium+ versions.

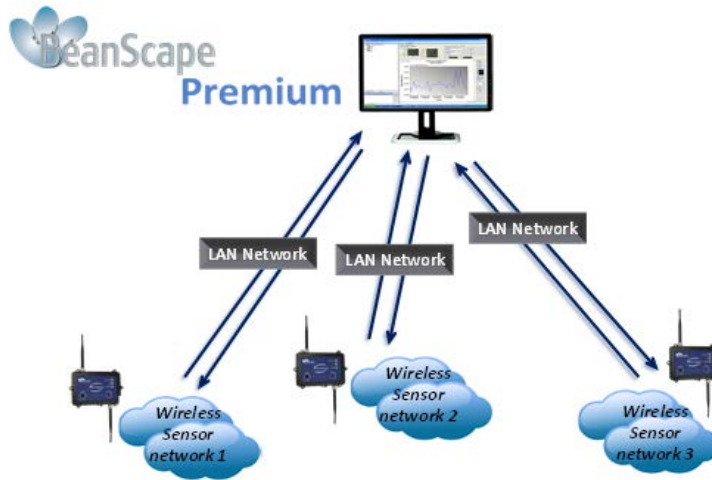
// BEANSCAPE PREMIUM : CONNECT SEVERAL WSN TO THE SAME COMPUTER



With the **BeanScape® Premium** you will be able to connect as many BeanGateway® as your computer can handle at the same time.

A BeanGateway® can manage up to 50 BeanDevice®, depending on the product range and measurement frequency. BeanScape® Premium allows you to cover a large field with a single PC, software and gateway.

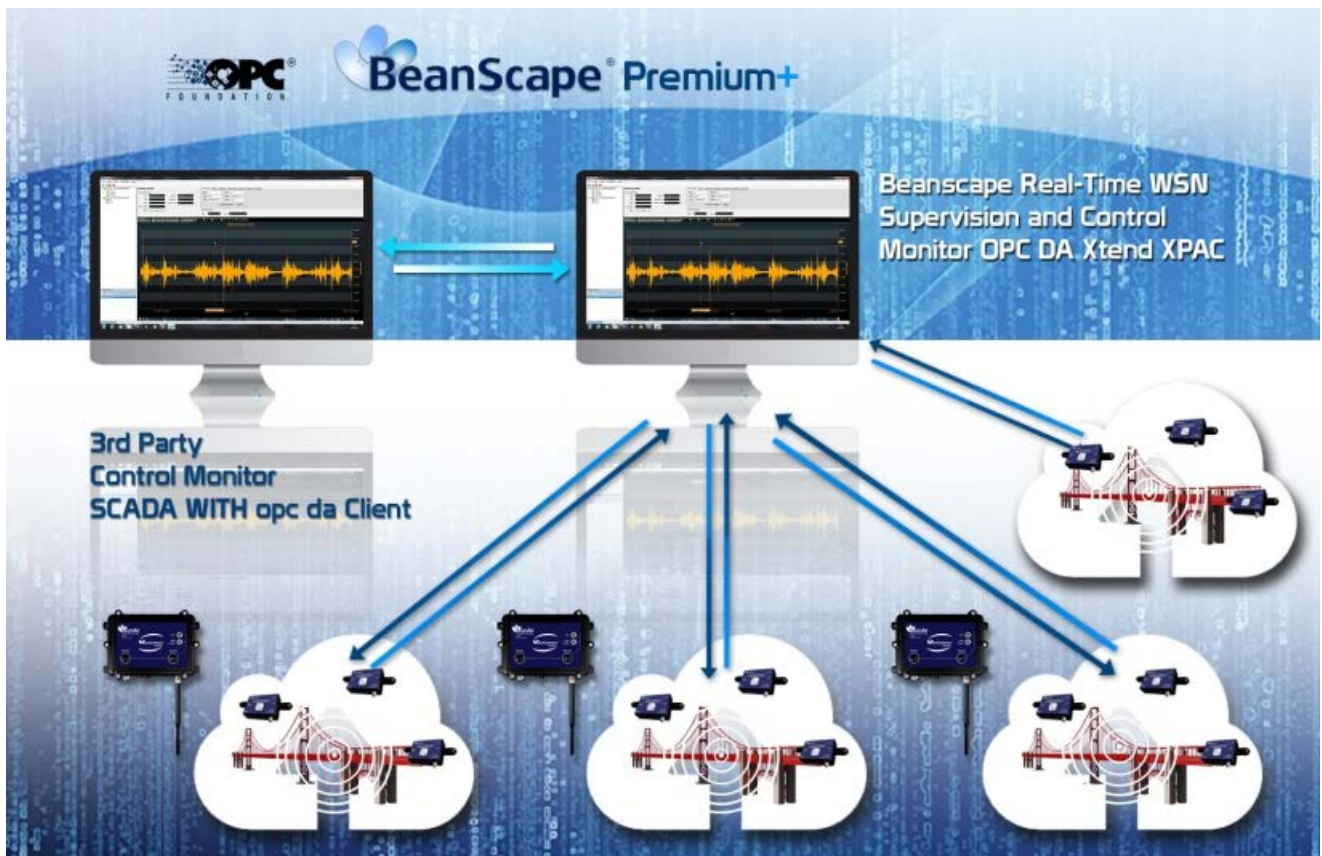
Multi client TCP/IP server included in **BeanScape® Premium** add-on was designed to offer you the best performances with one or more BeanGateway®.



// BEANSCAPE PREMIUM+ : CONNECT OUR WIRELESS SENSOR NETWORKS TO A THIRD-PARTY SOFTWARE



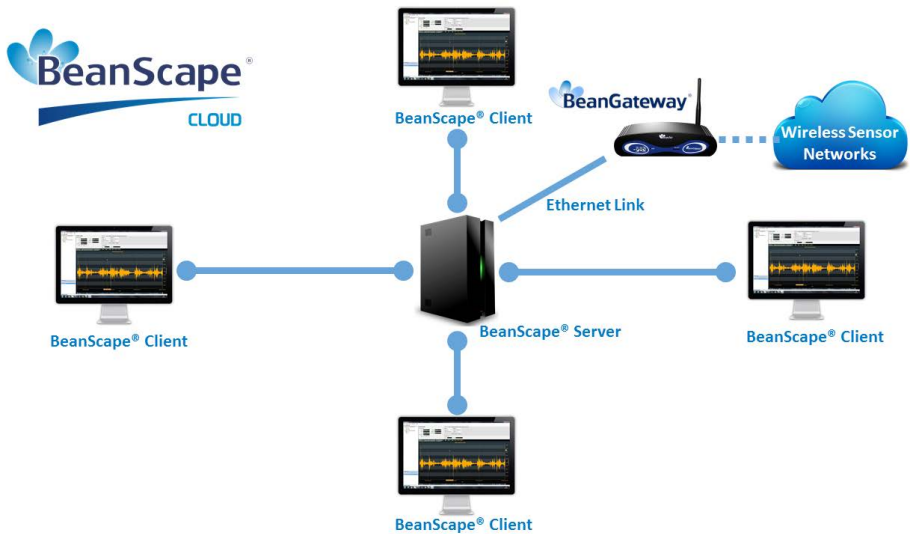
The BeanScape® Premium+ integrates an OPC DA server (Data Access). OPC DA is particularly well suited for real time measurement and data sharing. Each data/measurement can be associated to a tag or its attributes and shared with one or several OPC clients. Therefore, the BeanScape® Premium+ opens up to many third party applications (SCADA, web portals etc..). Our OPC server is DA 2, DA 2.5 and DA 3 compliant and allows two different presentations. The first is a compact presentation of the sensor tree, presenting all the secondary attributes under the form of attributes. The second is an extended presentation of the sensor tree where each secondary attribute is presented by an OPC item/tag rather than an attribute.



// BEANSCAPE CLOUD : MULTI-USER ACCESS

BeanScape® Cloud offers a multi-user access to Beanair Wireless Sensor Networks:

- A server version of the BeanScape® can be hosted on a PC with administrator rights to configure remotely Beanair WSN
- Several BeanScape® clients can be deployed on different PC without administrator rights, user can only visualize & backup all the measurements data transmitted by wireless sensors



// YOUR VIBRATION ANALYSIS REPORT AT A GLANCE

For user working on building and ground vibration, the BeanScape® (except manager) provides advanced vibration analysis tools:

- Vibration analysis tools: FFT, PPV (Peak Particle Velocity), Velocity
- Automatic report meeting the DIN4150-3 standard (Excel, PDF and Word)

DIN4150-3 specifies a method of measuring and evaluating the effects of vibration on structures designed primarily for static loading. It applies to structures which do not need to be designed to specific standards or codes of practice as regards dynamic loading.

The report is generated with the following information:

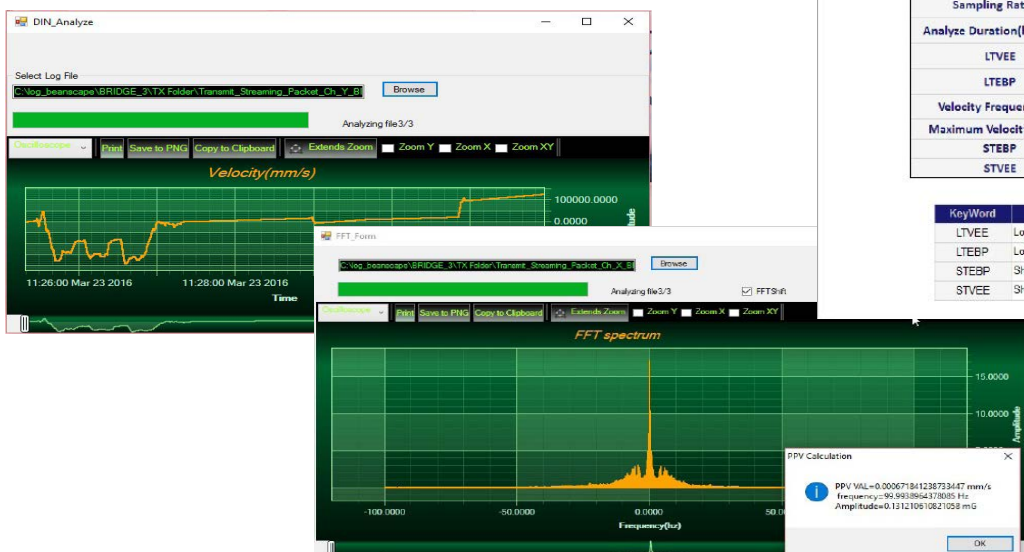
- Building Type,
- Pipeline Material,
- Velocity Average,
- Sampling Rate,
- Analyze Duration,
- LTVEE: Long Term Vibration Evaluation Effect,
- LTEBP: Long Term Effect on Buried Pipework,
- STEBP: Short Term Effect on Buried Pipework,
- STVEE: Short Term Effect Evaluation

01/05/2016 16:25:15

### DIN 4150-3 REPORT

<b>Building Type</b>	Commercial
<b>Pipeline Material</b>	Steel
<b>Velocity Average(mm/s)</b>	-2657,82710089696
<b>Sampling Rate(hz)</b>	200
<b>Analyze Duration(hh:mm:ss)</b>	00:33:06.4250000
<b>LTVEE</b>	NOK
<b>LTEBP</b>	NOK
<b>Velocity Frequency(hz)</b>	0,1953125
<b>Maximum Velocity(mm/s)</b>	127029,275017999
<b>STEBP</b>	NOK
<b>STVEE</b>	OK

KeyWord	Meaning
LTVEE	Long Term Vibration Evaluation Effect
LTEBP	Long Term Effect on Buried Pipework
STEBP	Short Term Effect on Buried Pipework
STVEE	Short Term Effect Evaluation



Product specifications are subject to change without notice. Contact Beanair for latest specifications.

//SOFTWARE VERSIONS

Main features					
Number of handled wireless sensor networks	1	1	Unlimited	Unlimited	Unlimited
Period technical assistance (e-mail)	1 Month	3 Months	6 Months	1 year	1 year
OPC Server DA	No	No	No	Yes	Yes
Real time data base	Yes	Yes	Yes	Yes	Yes
GUI (Graphical User Interface)	No	Yes	Yes	Yes	Yes
Alarm notification by email	No	Yes	Yes	Yes	Yes
Vibration analysis report ( DIN4150-3 standard)	No	Yes	Yes	Yes	Yes
FFT and PPV module	No	Yes	Yes	Yes	Yes
Free of cost ?	Yes	No	No	No	No
Multi-user access	No	No	No	No	Yes

// HOW THE BEANSCAPE LICENCE IS WORKING ?

The BeanScape® licence is related to the BeanGateway® device, i.e. user can install the BeanScape® on different PC and asynchronously connect it to the same BeanGateway®.

If a new BeanGateway® is acquired, there will be two applications cases:

- The BeanGateway® works independently, a new BeanScape® Basic should be acquired
- The BeanGateway® is connected to the same PC (multi-WSN management), BeanScape® Premium/Premium+/Cloud should be considered

//MINIMUM SYSTEM REQUIREMENTS

- 2.33GHz or faster x86-compatible processor
- Microsoft® Windows® XP (32-bit), Windows Server® 2003 (32-bit), Windows Server 2008 (32-bit), Windows Vista® (32-bit), Windows 7 (32-bit and 64-bit), Windows 8, Windows 8.1 and Windows 10
- 2GB of RAM
- 5 GB of disk space
- 128MB of graphics memory

*Product specifications are subject to change without notice. Contact Beanair for latest specifications.*