

OptaSense®
A LUNA company

DXS™
BROWSER

Quick Start Guide for V2.X

OPTA/DXS/1070 – Issue 1

Introduction

This is the **Quick Start Guide** for version **2.X** of the **DxS Browser**. The DxS Browser is a software package written by OptaSense which is used to enable the viewing and processing of **DAS** and **DTS data**. Additionally, it also provides a range of utilities to help petroleum engineers and analysts to process and display data.

The Browser is intended primarily for the following applications:

- Flow Monitoring;
- Hydraulic Fracture Monitoring;
- Cross Well Monitoring; and
- A number of tools to convert data between various formats.

This Quick Start guide is intended to introduce an operator to the key steps required to start a basic project and view an FFT plot

Installation & licensing

1

Locate and run the DxS installer



OptaSense DxS Browser 2.X Setup.exe

3

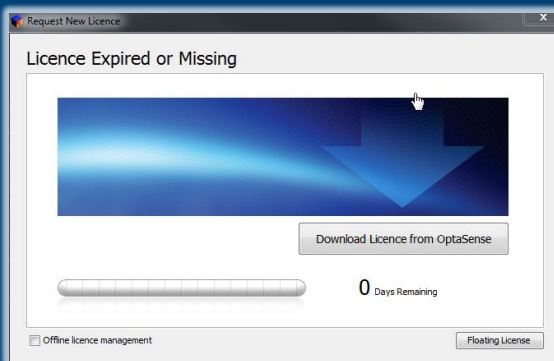
Locate and run the newly-installed DxS Browser



OptaSense DxS Browser 2.X

4

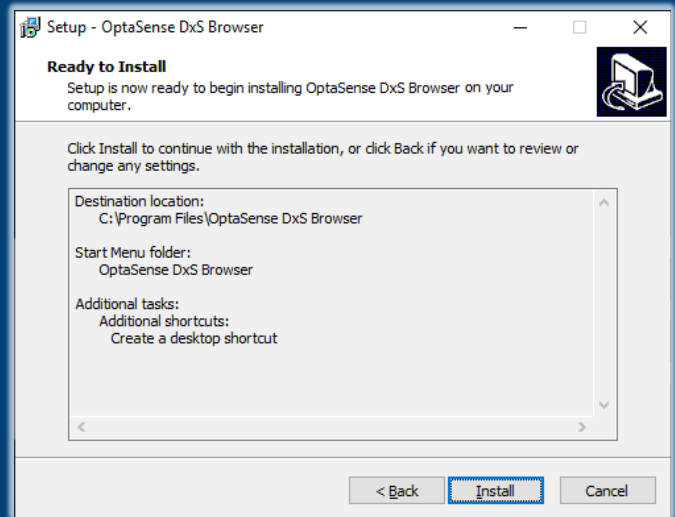
When the Request New License window appears, select Download License from OptaSense



Note: If you have been advised you have either an "Offline" or "FlexLM" license, you will need to follow different steps for licensing, as provided within the User Guide.

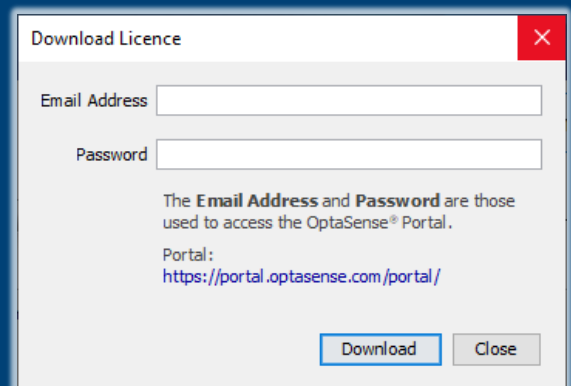
2

The Setup Utility will launch to guide you through the installation process. Change the default installation parameters if required and when ready, hit install to complete the installation. This should take no longer than a couple of minutes.



5

Enter your login details for the OptaSense Portal and click the Download button to automatically install your license. Contact support@optasense.com if you are not registered on the Portal

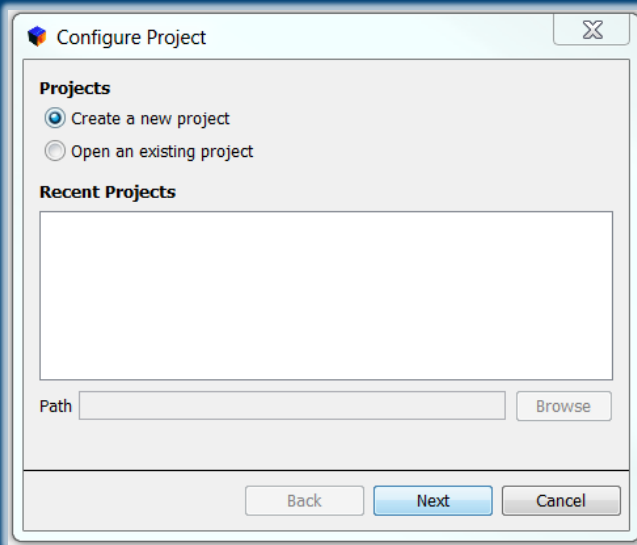


6

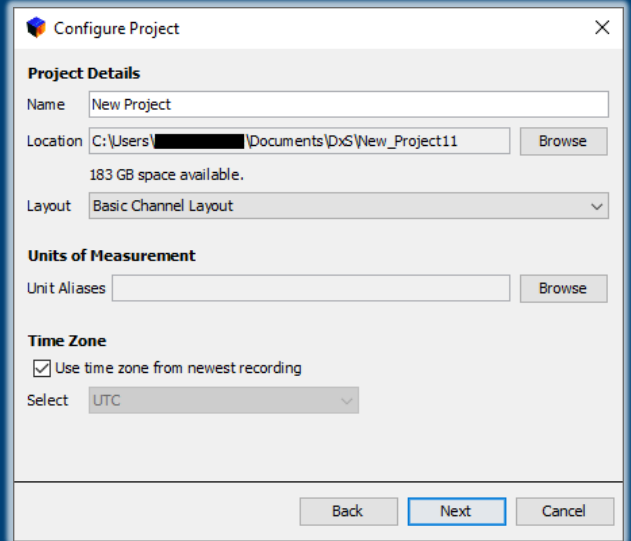
DxS will now open into the configure project panel

Creating a new project

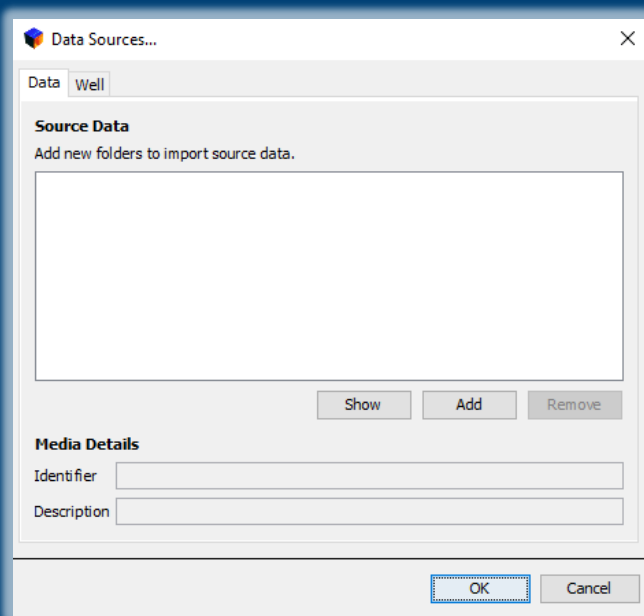
1 Open DxS Browser, select Create a new project and press next



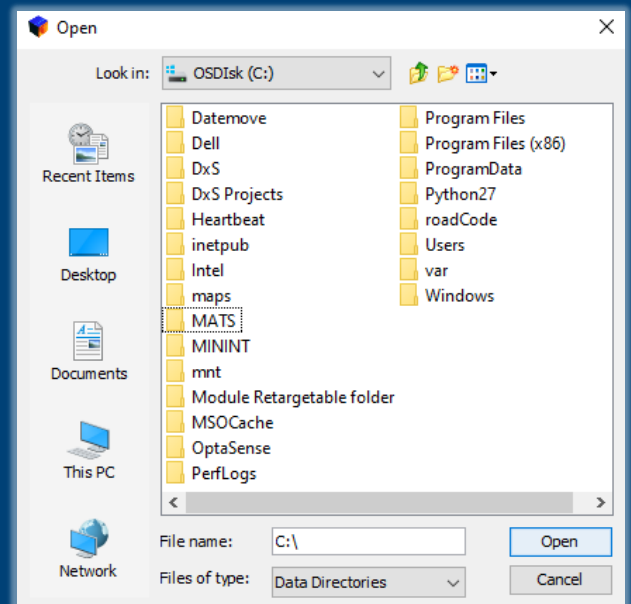
2 Input the project name, select the save location and input other details as necessary before pressing next



3 In the Data Sources menu, select Add to open up the data source selection window.



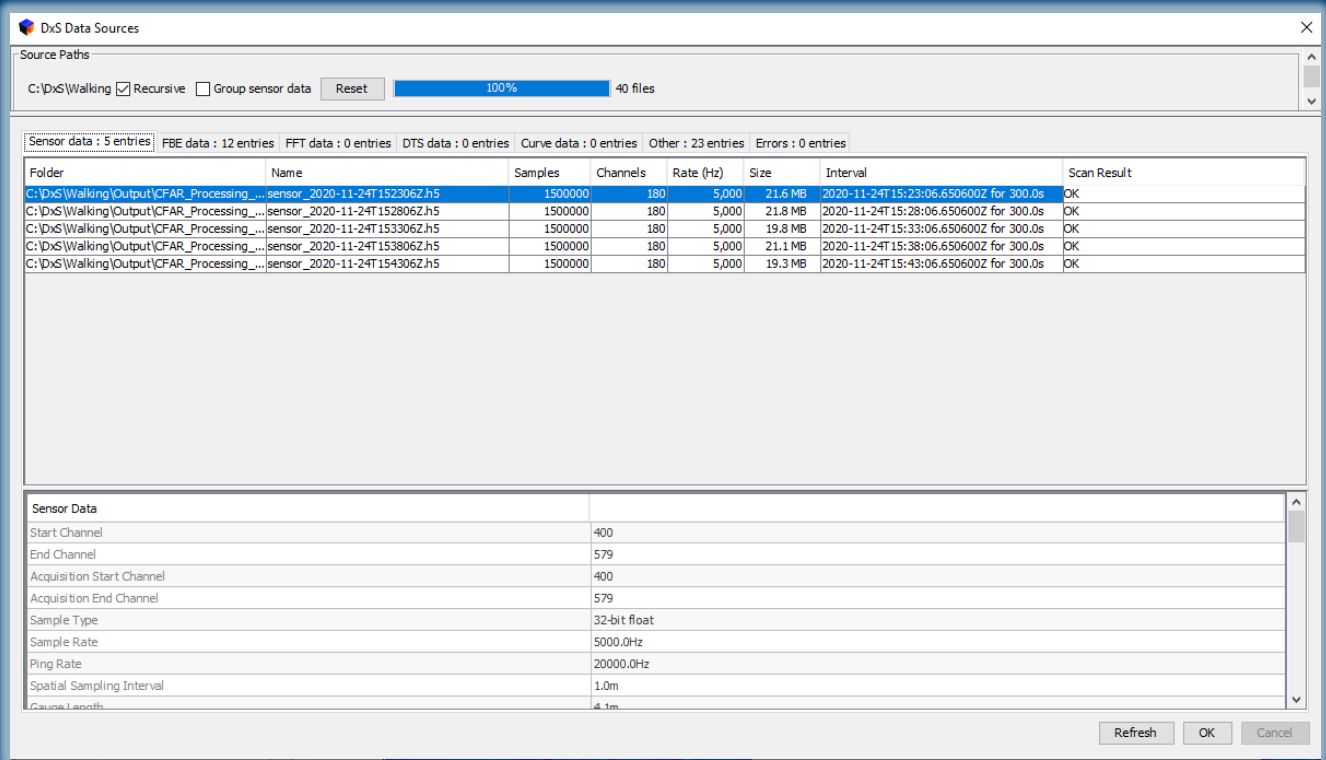
4 Select the data source directory to add into the project and press open.



Creating a new project

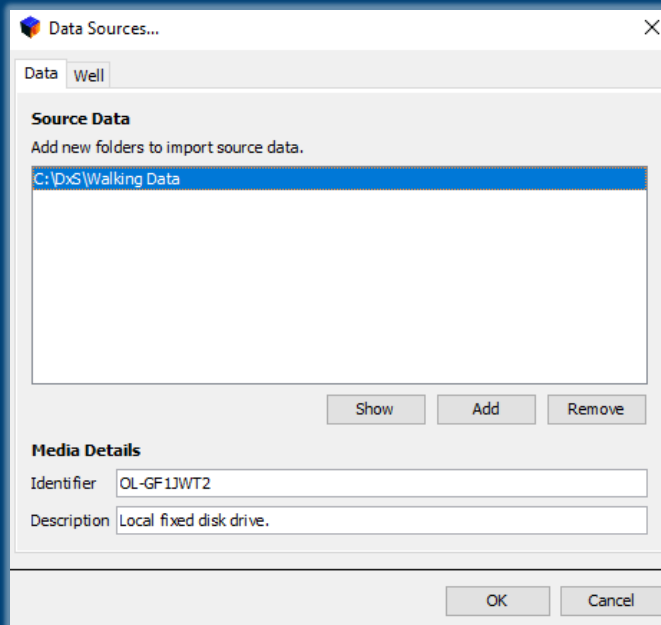
5

The DxS Data Sources will scan the selected folders for data files. If the files are stored within subfolders then tick recursive before clicking refresh to rescan. When complete, press ok



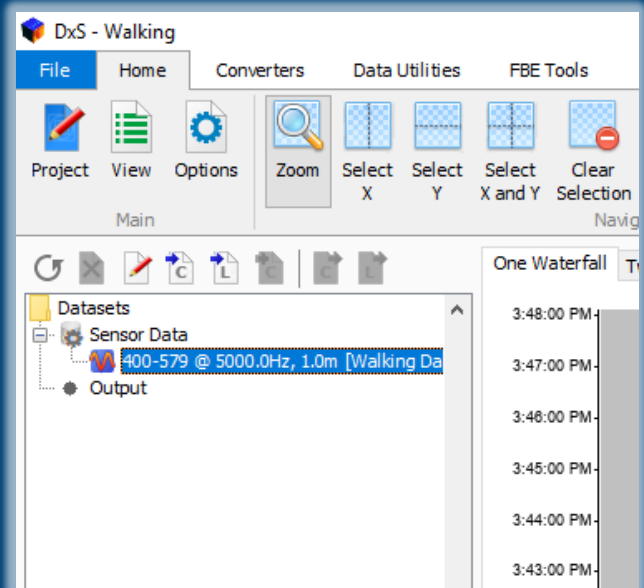
6

The newly imported data will now appear in the Data Sources window. Select ok to continue



7

DxS will now fully open, and the sensor data will be visible within the left pane



Navigating the GUI

- 1 File tab and menu is used for modifying, saving and creating new projects. It also contains the help page
- 2 Home tab contains commonly used functions
- 3 Toolboxes accessed through tabs (may vary dependent on licensing)
- 4 Individual tools (specific to each toolbox tab)

The screenshot shows the DXS software interface with the following components highlighted by callouts:

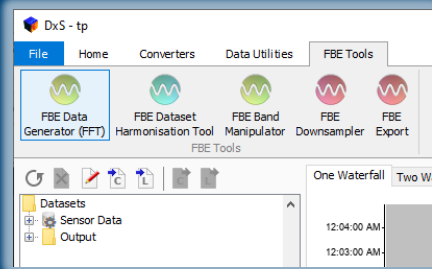
- 1** File tab and menu is used for modifying, saving and creating new projects. It also contains the help page
- 2** Home tab contains commonly used functions
- 3** Toolboxes accessed through tabs (may vary dependent on licensing)
- 4** Individual tools (specific to each toolbox tab)
- 5** Data objects tree displays all plot-able items within a project
- 6** Properties pane provides an information summary of the selected data
- 7** Data display window

The interface includes a menu bar (File, Home, Converters, Data Utilities, FBE Tools), a toolbar with various tool icons, a Data Objects tree on the left, a Properties pane at the bottom left, and a main data display window showing a waterfall plot of DAS Channel vs Time (UTC). The plot shows power levels in dBm/Hz across different channels and time intervals.

Creating an FFT

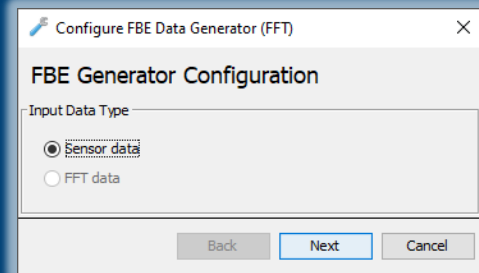
1

Locate and run FBE Data Generator within the FBE Tools tab



2

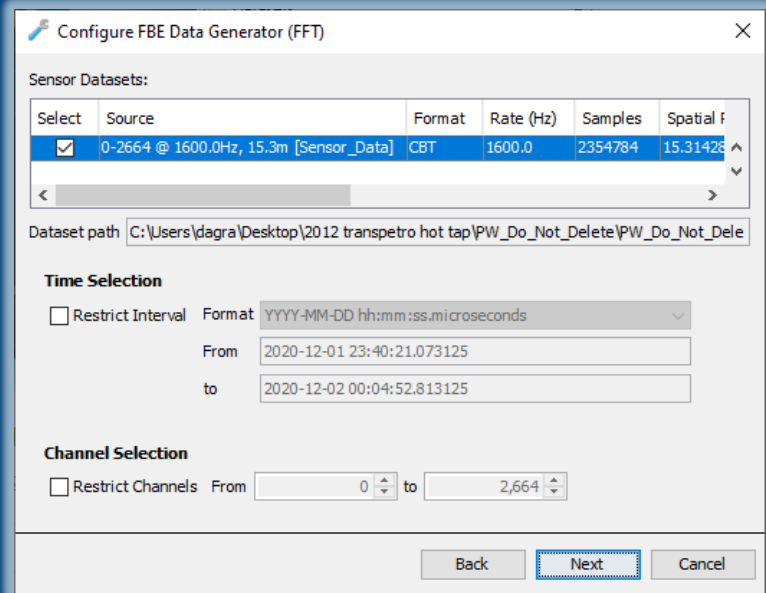
The configure FBE Data Generator window will now open. Select next to use Sensor Data as an input



3

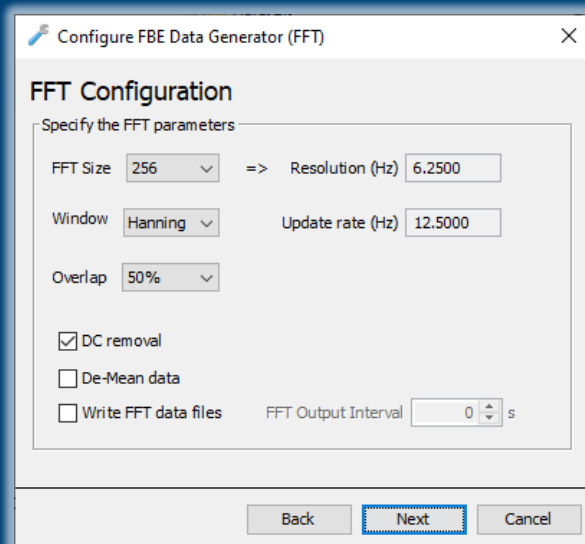
The data selection is controlled within this window.

Select the desired sensor data file within the top section of the window. By default, the tool will process the maximum time and channel extent of the data file, however this can be manually adjusted by checking the checkboxes and modifying the values as required. Select next to continue.



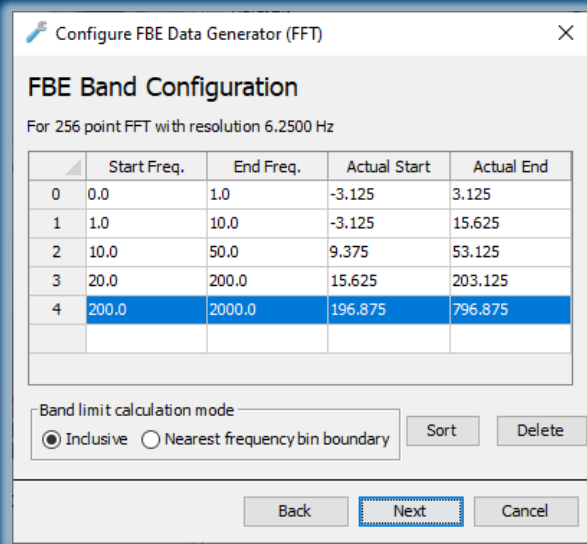
4

This window allows the modification of FFT parameters such as FFT size, window type and window overlap. The default parameters can be modified if desired. Select next to continue.

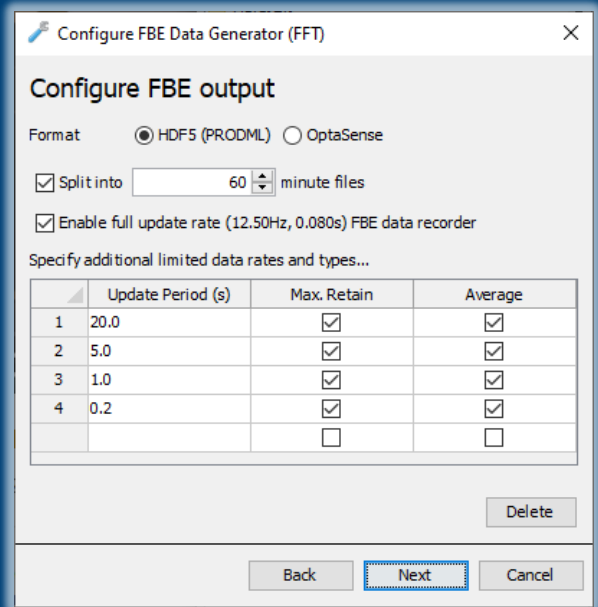


Creating an FFT

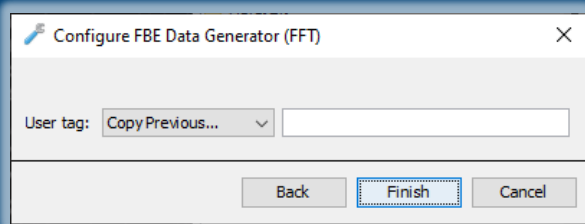
5 FBE output bands are defined here and can be inserted by inputting values into the additional row before selecting next to continue.



6 This window offers settings to limit the FBE output rate, however the default settings are usually sufficient. Select next to continue.

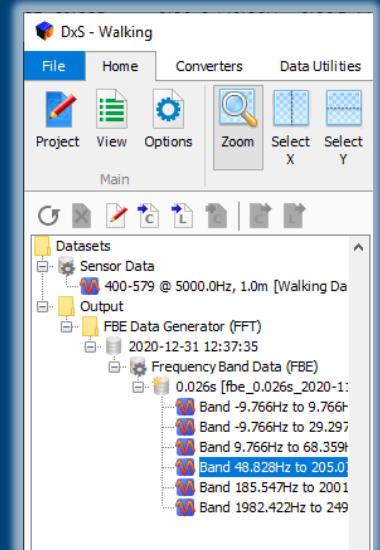


7 Enter a desired user tag for this fft dataset before selecting finish. This will close the window and begin computation

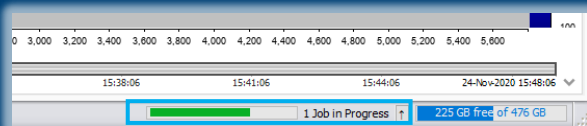


9

Once the FFT has been fully processed, the data will be visible in an output folder within the data objects tree



8 Depending on the size of the dataset, FFT processing may take a few minutes. The progress can be tracked using the progress bar at the bottom right of the window.



Displaying data

1 Select the desired display window

2 Data can be dragged from the data objects tree onto the data display

3 With the zoom tool selected, the display can be zoomed by rectangular selection

4 Right clicking on the data display provides zoom out and colour scale options

5 Footer bar gives cursor readouts for time and channel

0.026s fbe_0.026s 2020-11-24T15:23:06Z.h5 (Band 48.828Hz to 205.078Hz)

Time (11/24/20 UTC)

DAS Channel

Power (dBm/Hz)

24-Nov-2020 15:23:06 15:27:06 15:31:06 15:35:06

11/24/20 15:25:50.471 UTC DAS Channel: 407 Power: -62.874 dBm/Hz

227 GB free of 476 GB

5 Footer bar gives cursor readouts for time and channel

Further information

User Guides (File>Help>User Guides)



Video Guides

- Available on [YouTube](#)

Training

- Bespoke training both on-site and at OptaSense (contact for more details)

Support

- Remote email and telephone support packages available

