

DMC & DCC



- Data Manager Console (DMC)
- Data Collector Console (DCC)

The Data Manager Console (DMC) program is used to set up the project parameters, including the IGU-16 recording parameters, before deployment. The Data Collector Console (DCC) program provides the interface with the IGU-16 units, for programming and offload. After the data has been offloaded by DCC, DMC is used to generate the output files in SEG-D or SEG-Y format.

The DMC and DCC programs run on High-Speed servers that each have an external 120 TB RAID attached.

PARAMETERS	SPECIFICATIONS
Server	Dell R730
CPU	2 * E5-2630 v4
Disk 1 and Disk 2	RAID1 – 2 TB per disk – contains the Operating System
Disk Array	Dell MD1400 (Raid 6, 12 * 10TB) – for Data Storage

SmartSolo Software Suite



The SmartSolo software suite includes the following modules

MODULE	FUNCTIONS
SoloDMC	Data management and processing of deliverable SEG-D or SEG-Y files
SoloDCC	Data downloading and QC of IGU-16
SoloTester	IGU-16 test for both electronics and geophone

MODULE	FUNCTIONS
SoloPos	Provides map view of receivers & sources, and positional QC
Seisview	Viewing and QC of seismic data (raw data and SEGD/SEGY files)
SoloPro	Stacking and correlation of seismic data
AuxMonitor	Real Time QC of Aux box signals
SoloFDT	Deployment tool – automatic matching of line & station using internal GPS

Data Harvesting Rack (DHR)



The Data Harvesting Rack is used (in conjunction with the DCC Server) to program the IGU-16s. It is also used for offloading the seismic data, including QC data. Each DHR has 32 slots. The average downloading speed of each slot is 20 MB/s. There is a monitor on each DHR to view the status of the connected IGU-16s.

PARAMETERS	SPECIFICATIONS
Size	1660 * 650 * 300 mm
Weight	90 kg
Offloading Time	3000CHs @ 20 days @ 2 ms in < 3.25 hours
Input Voltage	100 – 240 V, 50/60 Hz
Rated Power	200 W

Battery Charger Rack (BCR)



The BCR is for charging the IGU-16 batteries. There are 48 slots on each BCR, each with an LED indicator to show that slot's charging status.

PARAMETERS	SPECIFICATIONS
Size	1827 * 600 * 320 mm
Weight	130 kg
Layout	12 rows, 4 chargers on each row
Maximum Charge Current	2A
Input Voltage	100 – 240 V, 50/60 Hz
Rated Power	1920W
Charging Mode	90% fast charge, trickle charge after 90%
Charging Time	3.25 Hours (from fully discharged)
Charging Temperature	3°C to 40°C

Auxiliary Box



The AUX Box contains 4 IGU-16-AUX units. It can thus record up to four auxiliary signals with microsecond accuracy, using its external GPS antenna. The Aux signals (e.g. TBs, correlation pilots) are then offloaded by plugging each IGU-16-AUX into the DHR.

PARAMETERS	SPECIFICATIONS
Size	361 * 289 * 165 mm
Weight	6.5 kg
Channels	4
Input Voltage	12 V DC

IGU Tester



The IGU Tester is used to perform acceptance testing of IGU-16s (both the electronics and the geophone). It can test 16 units at once. The Tester application runs on an attached computer and provides a comprehensive range of user-selectable tests, the results of which are saved in a database.

PARAMETERS	SPECIFICATIONS
Size	625 * 500 * 297 mm
Weight	38 kg
Input Voltage / Current	100 – 240V, 50/60, 2A
Rated Power	25W

Automatic Assembly/Disassembly Machine (ADM)



The Automatic Assembly/Disassembly Machine (ADM) is used to assemble and disassemble IGUs for offloading, battery charging and redeployment.

PARAMETERS	SPECIFICATIONS
Size	665 * 265 * 410mm
Weight	34.5 kg
Input Voltage	100 – 240V, 50/60 Hz
Rated Power	800 W
Assemble/ Disassemble Speed	Assemble/Disassemble 720 IGUs per hour

Field Deployment Tool (FDT)



The Field Deployment Tool is a hand-held RFID-equipped computer – a Juno T41 made by Trimble. The FDT runs a program called SoloFDT. SoloFDT is used for scanning the serial numbers of the IGU-16s after deployment (using RFID), in order to log the GPS location (and line and station) where each IGU was deployed.

PARAMETERS	SPECIFICATIONS
Size	210 * 81 * 32 mm
Weight	0.4 kg
Protect Level	IP68
Scanning Frequency Band	916-926 MHz

Portable Data Harvester (PDH)



The Portable Data Harvester (PDH) is a portable option for programming and offloading IGU-16s. Each PDH has 16 slots. The average downloading speed of each slot is around 20 MB/s.

PARAMETERS	SPECIFICATIONS
Size	625 * 500 * 366 mm
Weight	21.5 kg
Input Voltage	100 – 240 V, 50/60 Hz
Rated Power	100W

Portable Battery Charger (PBC)



The Portable Battery Charger (PBC) is used for charging the IGU-16 batteries. Each battery charger rack can charge 16 batteries. The LED indicators show the charging status of each battery.

PARAMETERS	SPECIFICATIONS
Size	625 * 500 * 366 mm
Weight	26.3 kg
Layout	4 rows, 4 chargers on each row
Input Voltage	100 – 240 V, 50/60Hz
Rated Power	640W
Maximum Charge Current	2 A
Charging Mode	90% fast charge, trickle charge after 90%
Charging Time	< 3.25 Hours (from fully discharged)

4 Slots All-In-One



4 Slots All-In-One is a small integrated system which combines 2 charging ports, 1 data harvesting port and 1 testing port. It is designed for the small channel system, so a crew can complete the whole project with only one box.

PARAMETERS	SPECIFICATIONS
Size	411*322*168mm
Slot No	2 charging slots, 1 data harvesting slots, 1 testing slots
Weight	7.6kg
Input Voltage	100 – 240 V, 50/60Hz
Charging Time	< 3.25 Hours (from fully discharged)

PARAMETERS	SPECIFICATIONS
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Download Speed	20MB/s
Rated Power	640W

16 Slots All-In-One

16 Slots All-In-One is a small integrated system which combines 12 charging ports, 3 data harvesting ports and 1 testing port.

It is designed for the small channel system, so a crew can complete the whole project with only one box.



PARAMETERS	SPECIFICATIONS
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Size	625 * 500 * 366 mm
Slot No	12 charging ports, 3 data harvesting ports, 1 testing port
Weight	21kg
Maximum Charge Current	2A
Input Voltage	100 – 240 V, 50/60Hz
Charging Time	3.25 Hours (from fully discharged)
Download Speed	20MB /s
Rated Power	640W
