1.1.1.1.1 Registry Configuration

During normal installation, the following default PLC registry entries will be created. Depending upon the sensor suite, these registry entries may need to be changed.

The core registry key is “HKEY_USERS\.DEFAULT\Software\RESON\6046”. Attributes under this key generally govern the behavior of the PLC itself.

NOTE:
Shut down the PLC before changing these settings. Changes will only take effect after the PLC has been restarted.

Table 1: Default PLC Registry Settings

Key	Type	Default	Description
ActivateOnStart	REG_DWORD	0	Stay passive (0) or go active (1) upon sensor startup. Likely disabled for AUV applications. Affects the logging status and, in the case of active devices, pinging status.
AutoHealthCheckEnable	REG_DWORD	0	Enable (1) or disable (0) periodic health checking.
AutoHealthCheckPeriod	REG_DWORD	30000	Automatic sensor health-check period in milliseconds, if enabled.
DataPath	REG_SZ	“c:\DataStore6046\”	The default folder for logged 7k data files. This folder will be created by the installation program but may be redirected as necessary. Folder must be valid.
DiagnosticMode	REG_DWORD	0	An optional field. if set to non-zero, enhanced diagnostics output will appear in the Survey Event Loge (6046.log). Useful for integration.
MaxFileSizeInMBytes	REG_DWORD	200	Maximum approximate file size in Mbytes of a 7k data file before the next file in a sequence is generated. File names will be time based, using a pre-defined nomenclature per Ref 1.
RecordOverlap	REG_DWORD	100	The number of 7k records that are duplicated in successively logged data files – used to assist post processing.
RemoteControlPort	REG_DWORD	6046	The TCP/IP port number for which the PLC will listen for connecting clients. If this entry is not present, 6046 is assumed.
RoutingEnable	REG_DWORD	0	Enables (1) or disables (0) routing of valid 7k records that are non-PLC commands to the specified sensor.
RoutingIndex	REG_DWORD	0	PLC relative index to which 7k messages will be routed.
SessionId	REG_DWORD	0	7k file header session field – see Ref 1.
TimeMessageEmission	REG_DWORD	0	Enables (1) or disables (0) periodic time synchronization mode.
TimeSyncMode	REG_DWORD	0	Stand alone (0) or slaved (1) time synchronization mode.
UserName	REG_SZ	“RESON 6046 User”	User name that appears in 7k data file header headers – see Ref 1.

Key	Type	Default	Description
UserNotes	REG_SZ	"RESON 6046 Payload Controller"	User notes that appear in the 7k file header – see Ref 1.

The following tables describe the default registry settings for subordinate sensor modules currently supported by the PLC.

Table 2: PLC sub-key BlueFin Defaults

Key	Type	Default	Description
Address	REG_SZ	"127.0.0.1"	This non-empty field is currently needed but ignored by the PLC.
Port	REG_DWORD	3100	UDP port over which broadcast Vehicle Control messages will be received.

Table 3: PLC sub-key EdgeTechFSDW Defaults

Key	Type	Default	Description
Address	REG_SZ	192.9.0.101	IP address of where EdgeTech's sonar.exe server program resides.
AutoShutdown	REG_DWORD	0	Enables (1) or disables (0) automatic shutdown of the EdgeTech system when the PLC shuts down all subsystems. Requires v8.1 or higher of EdgeTech's sonar.exe program.
Command	REG_DWORD	1700	TCP/IP command port that the EdgeTech server is configured to listen for connecting clients.
Data	REG_DWORD	1701	TCP/IP data port that the EdgeTech server is configured to listen for connecting clients.

Table 4: PLC sub-key EdgeTechFSDW\SBP Defaults

Key	Type	Default	Description
Default	REG_SZ	"SubBottom Profiler"	None.
SubsystemId	REG_DWORD	0	Subsystem identifier for the Sub-Bottom Profiler. Must match the EdgeTech sonar.ini file.

Table 5: PLC sub-key EdgeTechFSDW\SSSHF Defaults

Key	Type	Default	Description
Default	REG_SZ	"Side Scan Sonar (High Frequency) "	None.
SubsystemId	REG_DWORD	21	Subsystem identifier for the high-frequency Side Scan sonar. Must match the EdgeTech sonar.ini file.

Table 6: PLC sub-key EdgeTechFSDW\SSSLF Defaults

Key	Type	Default	Description
Default	REG_SZ	"Side Scan Sonar (Low Frequency) "	None.
SubsystemId	REG_DWORD	20	Subsystem identifier for the low frequency Side Scan sonar. Must match the EdgeTech sonar.ini file.

Table 7: PLC Sub-Key RESON7kGeneric Defaults

Key	Type	Default	Description
Default	REG_SZ		None.

Table 8: PLC Sub-Key RESON7kGeneric Interface_N Defaults

Key	Type	Default	Description
Default	REG_SZ		None
Address	REG_SZ	127.0.0.1	
Name	REG_SZ	Interface 0, 7k Generic	
Port	REG_DWORD	4888	
Source Address	REG_SZ	127.0.0.1	
Source Port	REG_DWORD	10000	

Table 9: PLC sub-key RESON7kSonar Defaults

Key	Type	Default	Description
AutoShutdown	REG_DWORD	0	Not currently used – to be determined.
MessageRouting	REG_DWORD	0	Not currently used – to be determined.
ParameterRouting	REG_DWORD	0	

For every type of device connected, there must be a separate sub-key under RESON7kSonar. The name of the SubKey would be "Device_[SeaBat Model]"_[Enumerator]. For example, an entry for a single SeaBat 7125 sonar would appear as follows: "Device_7125_0". The name of this entry must match the corresponding sensor entry in the PLCConfiguration.xml file.

Table 10: PLC Sub-Key RESON7kGeneric Device Defaults

Key	Type	Default	Description
Default	REG_SZ		None.
Address	REG_SZ	127.0.0.1	Reserved
Collection Mode	REG_DWORD	15	Bit mask indicating which data types are to be collected from the device. Values can be bit-wise or 'ed together to enable multiple modes. Bit values in hexadecimal are: • 0x01 – Generic sensors (record 1000 to 1999). • 0x02 – Beam data (record 7008 and 7000 to 7005). • 0x04 – Bathymetric data (record 7006 and 7000 to 7005). • 0x08 – Backscattered imagery (record 7007 and 7000 to 7005).
InPort	REG_DWORD	0	Reserved.
Interface Type	REG_DWORD	0	Local (0) or Remote (1). Only local is supported currently.
OutPort	REG_DWORD	0	Reserved.