

868 MHz Long-Range Reader / Writer SIL-9400-MUX4



- 868 MHz RFID Reader/Writer for Long-Range applications
- reading distance up to 12m with external antenna / 8 dBi gain [depending on tag size]
- integrated multiplexer for 4 or 8 antennas
- anti-collision
- RSSI Data Response
- 2 digital Inputs / 4 digital Outputs
- Monitor output

- USB Connector for Keyboard and Mouse
- Web Interface for configuration and firmware update
- Linux based operating system
- 1GB User Memory allows user creating own application software running on the reader

Typical use cases:

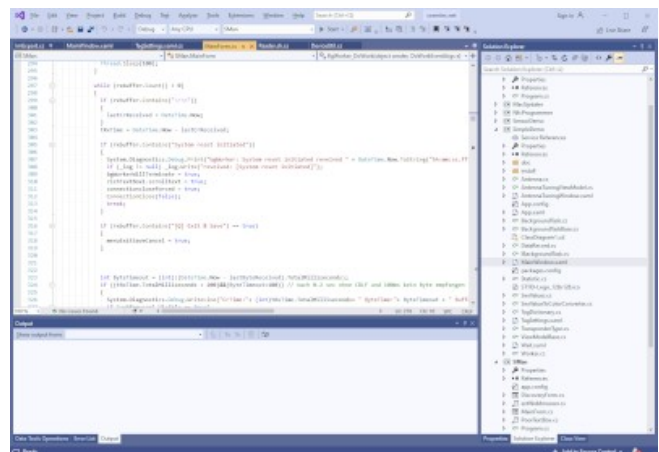
- Logistic UHF Reader Gates
- Item Tracking
- Automation technology
- Vehicle identification
- Animal identification

User Application Software Development

The user can create own applications for the SIL-9400 to integrate the device into existing infrastructures like ERP-systems or cloud applications. Depending on requirements, a monitor, keyboard and a mouse can be attached to control the application.

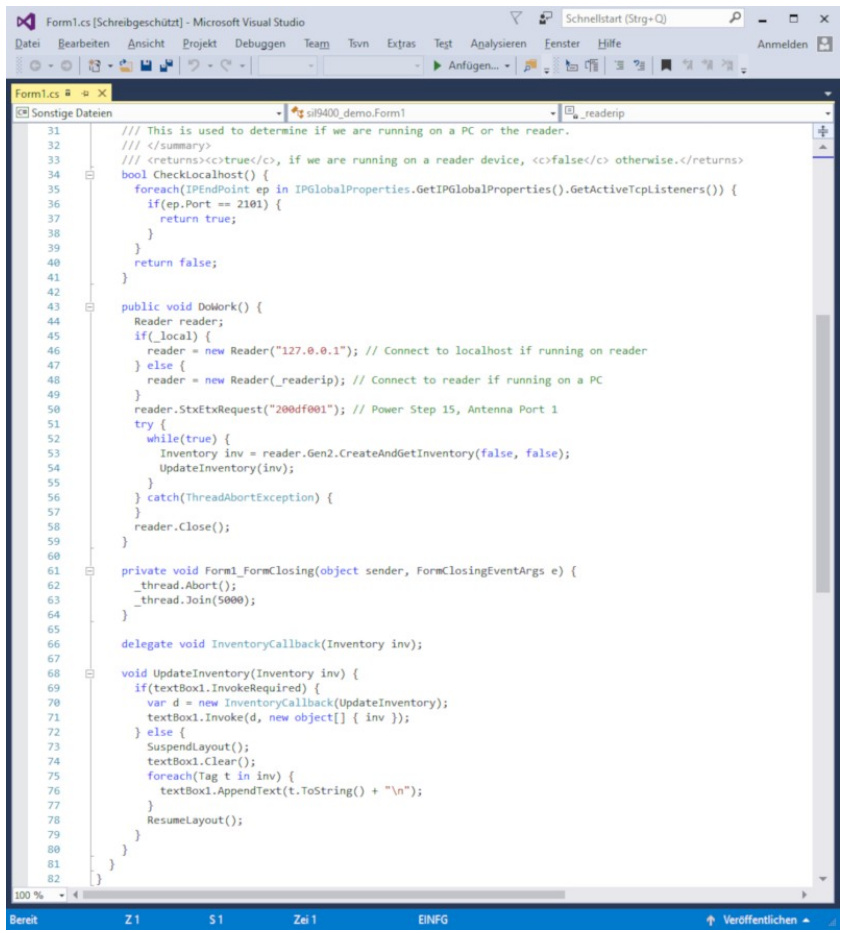
The development can be done using Microsoft Visual Studio© or MonoDevelop© using the .NET or Mono-Framework. For access to the RFID protocol, a library is available.

After development, the user application is transmitted to the device by uploading the files with a web browser.



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Software Tools



```

31 // This is used to determine if we are running on a PC or the reader.
32 // </summary>
33 // <returns><true/>, if we are running on a reader device, <false/> otherwise.</returns>
34 bool CheckLocalhost() {
35     foreach(IPEndPoint ep in IPGlobalProperties.GetIPGlobalProperties().GetActiveTcpListeners()) {
36         if(ep.Port == 2101) {
37             return true;
38         }
39     }
40     return false;
41 }
42
43 public void DoWork() {
44     Reader reader;
45     if(!_local) {
46         reader = new Reader("127.0.0.1"); // Connect to localhost if running on reader
47     } else {
48         reader = new Reader(_readerip); // Connect to reader if running on a PC
49     }
50     reader.StxExtRequest("200df001"); // Power Step 15, Antenna Port 1
51     try {
52         while(true) {
53             Inventory inv = reader.Gen2.CreateAndGetInventory(false, false);
54             UpdateInventory(inv);
55         }
56     } catch(ThreadAbortException) {
57     }
58     reader.Close();
59 }
60
61 private void Form1_FormClosing(object sender, FormClosingEventArgs e) {
62     _thread.Abort();
63     _thread.Join(5000);
64 }
65
66 delegate void InventoryCallback(Inventory inv);
67
68 void UpdateInventory(Inventory inv) {
69     if(textBox1.InvokeRequired) {
70         var d = new InventoryCallback(UpdateInventory);
71         textBox1.Invoke(d, new object[] { inv });
72     } else {
73         SuspendLayout();
74         textBox1.Clear();
75         foreach(Tag t in inv) {
76             textBox1.AppendText(t.ToString() + "\n");
77         }
78         ResumeLayout();
79     }
80 }
81
82 }
    
```

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Technical Data:

Dimensions: (l x w x h)	(160 x 105 x 38) mm / with connectors: (165 x 125 x 38) mm
Power supply:	12-24 V DC
Current consumption:	full operation 800 mA @ 24 V DC
Transmit frequency:	865.7 MHz to 867.5 MHz (see EN 302 208)
Antenna:	4 or 8 external antenna ports via SMA-connector
Output Power (conducted @50Ω):	1.7 W
Transponder:	ISO 18000-6C EPC Gen2
Interface:	USB 2.0, Ethernet, RS232
Housing:	Alu / IP20

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Operating temperature: -10° to +50 °C

Order Information:

SIL-9400-MUX4 Order-No.: 220.9400

SIL-9400-MUX8 Order-No.: 220.9401

Accessories:

SAT-A26/26-LR-P-UHF-cir Order-No.: 400.2626

SAT-A12/12-P-868MHz-cir Order-No.: 400.2018

SAT-A13/13-P-868MHz Order-No.: 400.1313

Cable-UHF-3m-SMA-N Order-No.: 999.0346

Cable-UHF-6m-SMA-N Order-No.: 999.0132

Cable-UHF-12m-SMA-N Order-No.: 999.0153

MOUNT-A12/12-P-UHF Order-No.: 999.0129

24 V Power Supply 2.7A EU Order-No.: 999.0165

24 V Power Supply 1A EU Order-No.: 999.0067