

TECHNICAL DOCUMENT

Introduction

PEC has added the IP Send and Receive function to the IVR software. This function enables the IVR applications to communicate with external programs through IP. The function added is:

1. IVR_SOCKET_SEND_RECEIVE

IVR_SOCKET_SEND_RECEIVE

Parameters:

1. Function – IVR_SOCKET_SEND_RECEIVE
2. Constant1/Label of Operand1 – [IP Address][Space][Port No][Space][Timeout Value in Milliseconds]
3. Constant1/Label of Operand1 – Data to be sent
4. Label of Output – Optional variable which stores the received data from the external program.

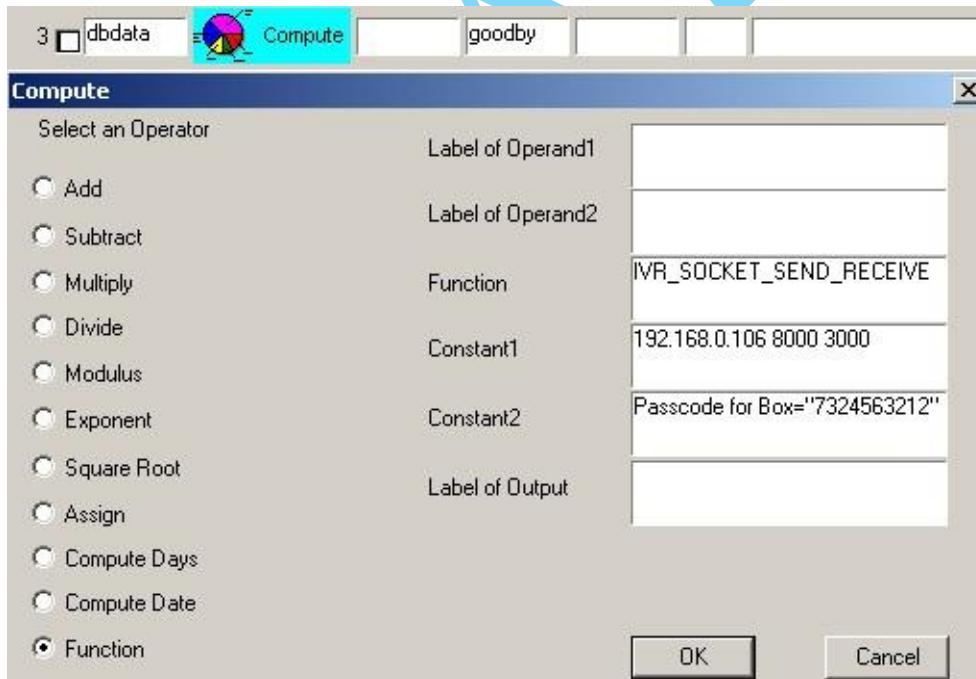


Figure 1 – Example IVR_SOCKET_SEND_RECEIVE function.

In the above example, the data (Passcode for Box="7324563212") is sent to the IP address: 192.169.0.106 port: 8000. If the answer data is not received within 3000 milliseconds, the logic transfers to the No Label of the IVR call flow. The IP address and the port number must

be specified. If the timeout value is missing, the IVR software sets the default value to 5000 milliseconds. The length of data sent and received is limited to 512 bytes.

External Program

The IVR software inserts the telephone channel number of the call before the data and then sends it to the external program. The external program must insert the same channel number before sending the response data to the IVR software.

For example:

The data "Address for SS=487-32-2312" will be sent as
"65 Address for SS=487-32-2312", where 65 is the telephony channel number.

If the response is "1230 34th Street", it should be sent as
"65 1230 34th Street", where 65 is the telephone channel number.

Using the Telephone Channel Bias (eee81)

If the parameter eee[81] is set to a number greater than 0, the software uses the value to come up with effective telephone channel number. This feature is effective for PEC software with compilation of date of February 3, 2016 or later.

Example:

If eee[81] is set to 512, then

The data "Name for SS=487-32-2312" will be sent as
"577 Name for SS=487-32-2312", where 65 is the telephony channel number.

If the response is "John Smith", it should be sent as
"577 John Smith", where 65 is the telephone channel number.

Feature Logic

Upon first reference to the IP address and port number, the IVR software establishes the connection to the external program and sends the data. In case the external program is not ready, the function times out and the logic is transferred to the No Label. If the connection is successful, the data is sent to the external program and the software waits for the response. Once the response data is received, the data is moved to the correct IVR label and control is transferred to the next line or the Yes Label. The software keeps the connection active and the subsequent references to the IP address and port number does not require new connection.

The IVR application developers do not have to worry about connecting and disconnecting to the external program. If the connection to an external program is lost, the IVR software tries to reconnect when a future reference to the IP address and port of the external application is received.