

## Base64Encode

### Example

```
String encodedString = "SWdvcIBpcyBncmVhdCE="
Print Base64Decode(encodedString)
Igor is great!
```

### See Also

**Base64Encode**, **URLRequest**

## Base64Encode

### **Base64Encode** (*inputStr*)

The Base64Encode function returns a copy of *inputStr* encoded as Base64.

The algorithm used to encode Base64-encoded data is defined in RFC 4648 (<http://www.ietf.org/rfc/rfc4648.txt>).

For an explanation of Base64 encoding, see <https://en.wikipedia.org/wiki/Base64>.

The Base64Encode function was added in Igor Pro 8.00.

### Example

```
String theString = "Igor is great!"
Print Base64Encode(theString)
SWdvcIBpcyBncmVhdCE=
```

### See Also

**Base64Decode**, **URLRequest**

## Beep

### **Beep**

The Beep operation plays the current alert sound (*Macintosh*) or the system beep sound (*Windows*).

## BesselI

### **BesselI** (*n*, *z*)

The BesselI function returns the modified Bessel function of the first kind,  $I_n(z)$ , of order *n* and argument *z*. Replaces the bessI function, which is supported for backwards compatibility only.

If *z* is real, BesselI returns a real value, which means that if *z* is also negative, it returns NaN unless *n* is an integer.

For complex *z* a complex value is returned, and there are no restrictions on *z* except for possible overflow.

### Details

The calculation is performed using the SLATEC library. The function supports fractional and negative orders *n*, as well as real or complex arguments *z*.

### See Also

The **BesselJ**, **BesselK**, and **Bessely** functions.

## BesselJ

### **BesselJ** (*n*, *z*)

The BesselJ function returns the Bessel function of the first kind,  $J_n(z)$ , of order *n* and argument *z*. Replaces the bessJ function, which is supported for backwards compatibility only.

If *z* is real, BesselJ returns a real value, which means that if *z* is also negative, it returns NaN unless *n* is an integer.

For complex *z* a complex value is returned, and there are no restrictions on *z* except for possible overflow.

### Details

The calculation is performed using the SLATEC library. The function supports fractional and negative orders *n*, as well as real or complex arguments *z*.

### See Also

The **BesselI**, **BesselK**, and **Bessely** functions.