WinFrog Device Group:	ROV
Device Name/Model:	MS1000
Device Manufacturer:	Kongsberg Maritime Kirkegårdsveien 45 NO-3616 Kongsberg Norway Phone +47 32 28 50 00 Mailing address P.O.Box 483, NO-3601 Kongsberg, Norway www.km.kongsberg.com
Device Data String(s) Output to WinFrog:	None
WinFrog Data String(s) Output to Device:	$MSTRK,Target-number, Time-stamp, Latitude, N/S, Longitude, E/W,l
WinFrog Data Item(s) and their RAW record:	None

DEVICE DESCRIPTION:

The MS1000 scanning sonar is manufactured by Kongsberg. It can output a target in the format described above, which is the only telegram WinFrog decodes. The data is not stored, but in addition to displaying the data in the I/O Device's Decoded Data pane it can also be displayed on the Graphics window. Additionally it is transmitted to Smart Remotes which can also display it on the Graphics window. See the Operator Display Windows chapter of the User's Guide.
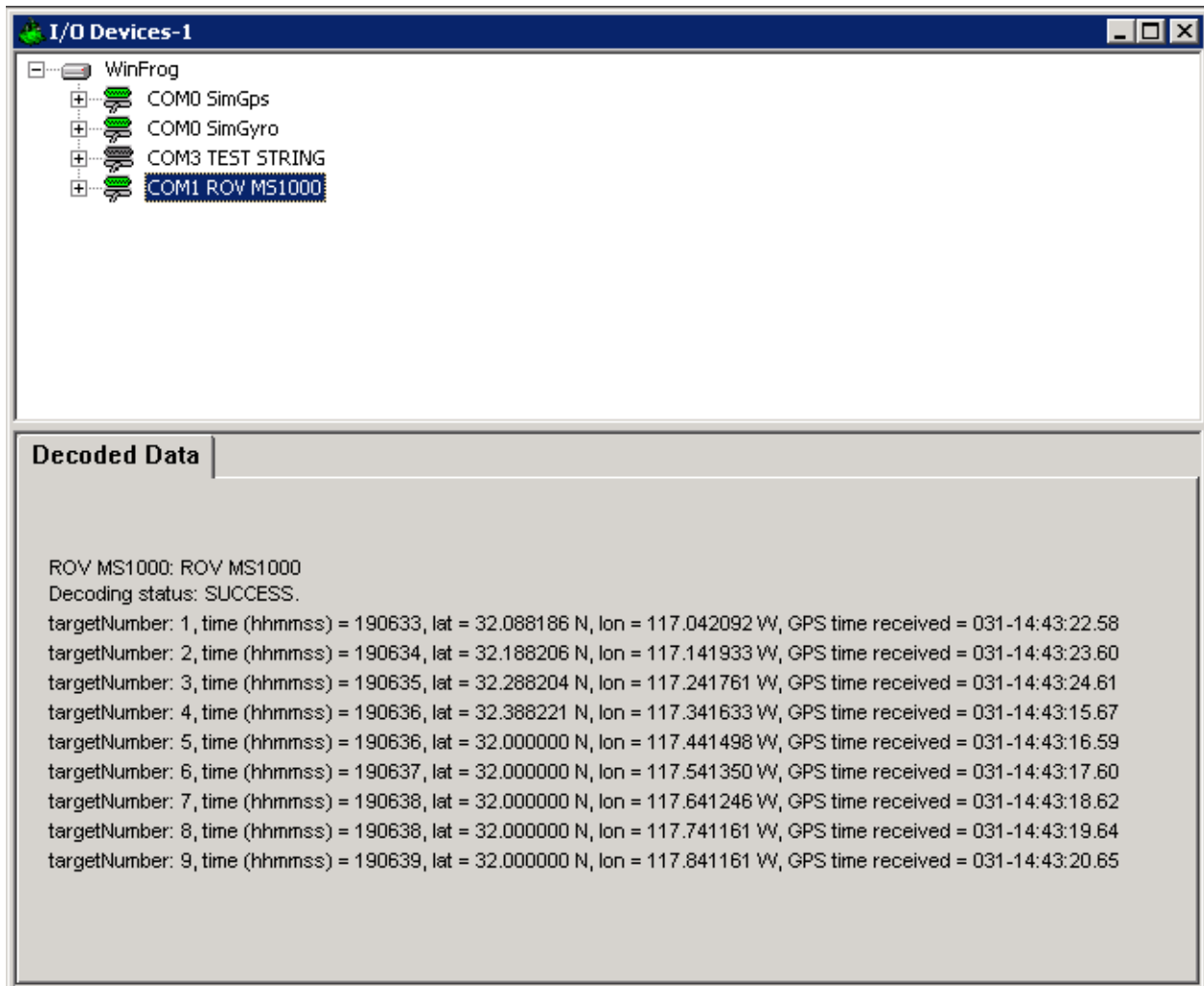
DEVICE CONFIGURATION INSTRUCTIONS

WINFROG I/O DEVICES > EDIT I/O:

Serial
Configurable Parameters

WINFROG I/O DEVICES > CONFIG OPTIONS:
The MS1000 device is added to WinFrog from the ROV device category. There are no data items added to the system when the MS1000 device is initiated.

No configuration is available or required at the device level.

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I/O Devices-1
□ WinFrog
   ⊞ COM0 SimGps
   ⊞ COM0 SimGyro
   ⊞ COM3 TEST STRING
   ⊞ COM1 ROV MS1000

Decoded Data

ROV MS1000: ROV MS1000
Decoding status: SUCCESS.
targetNumber: 1, time (hhmmss) = 190633, lat = 32.088186 N, lon = 117.042092 W, GPS time received = 031-14:43:22.58
targetNumber: 2, time (hhmmss) = 190634, lat = 32.188206 N, lon = 117.141933 W, GPS time received = 031-14:43:23.60
targetNumber: 3, time (hhmmss) = 190635, lat = 32.288204 N, lon = 117.241761 W, GPS time received = 031-14:43:24.61
targetNumber: 4, time (hhmmss) = 190636, lat = 32.388221 N, lon = 117.341633 W, GPS time received = 031-14:43:15.67
targetNumber: 5, time (hhmmss) = 190636, lat = 32.000000 N, lon = 117.441498 W, GPS time received = 031-14:43:16.59
targetNumber: 6, time (hhmmss) = 190637, lat = 32.000000 N, lon = 117.541350 W, GPS time received = 031-14:43:17.60
targetNumber: 7, time (hhmmss) = 190638, lat = 32.000000 N, lon = 117.641246 W, GPS time received = 031-14:43:18.62
targetNumber: 8, time (hhmmss) = 190638, lat = 32.000000 N, lon = 117.741161 W, GPS time received = 031-14:43:19.64
targetNumber: 9, time (hhmmss) = 190639, lat = 32.000000 N, lon = 117.841161 W, GPS time received = 031-14:43:20.65
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WINFROG VEHICLE TEXT WINDOW > CONFIGURE VEHICLE DEVICES > DEVICE > EDIT OPTIONS:
It is unnecessary to attach the NONE data item to any vehicle. And one shouldn't attach the NONE data item to any vehicle.

Data Telegram Format

A comma delimited ASCII string sent on a serial communications line.

Field Number	Field Description	Value(s)/example
1	Header	$MSTRK
2	Target number	range: 1 – 9
3	Latitude decimal degrees	32.88818649
4	Latitude direction	'N' or 'S'
5	Longitude decimal degrees	79.94209173
6	Longitude direction	'E' or 'W'
7	This field is ignored	