

REVMA - Vessel management software

(Research Vessel Manager)

REVMA is a toolbox within **PERPLEX**[®]
(Program for Expedition Route Planning and Execution)

Gerd Rohardt

Physical Oceanographer

Alfred-Wegener-Institute for Polar-
and Marine Research
Bremerhaven, Germany



Gerd.Rohardt@awi.de

<http://perplex.awi.de>

Coordinating the Operation of a Research Vessel Fleet

- Area
- Working groups / disciplines
- Participants
- Instruments / heavy gears
- Seasons

No standardized electronic format of the cruise plans exist.

AWI – FS Polarstern

Preliminary long-term schedule

	January	February	March	April	May	June	July	August	Sept.	October	Nov.	Dec.	
2005	ANT-XXX3 Weddel Sea, ANDELP, WESCOB, supply Fahrbach		ANT-XXX4 Scotia Sea Schnecker		ANT-XXX5 Transfer Müller		ARK-XXX16 Greenland Sea From Strait FAHRBACH		ARK-XXX18 Bifbauer		ANT-XXX11 Transfer Van der Louf		ANT-XXX12 Lazarev Sea LAKRIS supply-N Rieser
2006	ANT-XXX3 Drake Passage Prevoist		ANT-XXX4 Amundsen Sea, supply-J Gule		ANT-XXX5 SDW Ridges Johst SCHAUER		ANT-XXX6 Lazarev Sea, LAKRIS Bathmann		ANT-XXX7 Weddel Sea, CRYONWED SCHAUER		ANT-XXX8 EVLANTA - CGAMLR Gule NN		
2007	ANT-XXX9 East Antarctica / supply-N Hubberten		ANT-XXX10 Transfer NN		ARK-XXX1 Nordic Seas HERMES Krogan		ARK-XXX2 Arctic Ocean SPACE, DAMOCLES Schauer		ANT-XXX11 Transfer NN		ANT-XXX12 Weddel Sea ANCEP- BYRONC NN		
2008	ANT-XXX3 Biogeo supply-N SCALC		ANT-XXX4 Weddel Sea, Drake Passage, supply-N/J CASO, GEOTRACES Fahrbach		ARK-XXX1 Greenland Sea NN		ARK-XXX2 Fram Strait DAMOCLES NN		ARK-XXX3 Arctic Ocean Geophysics, DAMOCLES NN		ANT-XXX11 Arnlund South Pacific BIPONC Gersdorf		
2009	ANT-XXX3 Supply-J		ANT-XXX4 South Pacific supply-J HPAS Gule		ANT-XXX5 Greenland Sea DAMOCLES NN		ARK-XXX1 Northern Greenland Sea Geophysics Johst		ANT-XXX11 Transfer NN		ANT-XXX12 Drake Passage CASO, supply-J NN		ANT-XXX13 Scotia Sea FESS Smetacek
2010	ANT-XXX4 Weddel Sea, Lazarev Sea, supply-N CASO, CGAMLR NN		ANT-XXX5 NN		ARK-XXX1 Disko Bay NN		ARK-XXX2 Baffin Bay, Nares Strait GATEWAYS NN		ANT-XXX11 Transfer NN		ANT-XXX12 NN		

Antarctic
Arctic
Logistics

Name unbetreffend - chief scientist
Name in capital letters - coordinator

Status: 11.07.2005



Jahresplan F.S. "Poseidon" 2006

	Januar	Februar	März	April	Mai	Juni	Juli	August	September	Oktober	November	Dezember
1		Tauschzeit	P333					UMB			Las Palmas P344/2	
2		Kapverden	2806		Kopf	P338		MAR			5-8	
3		SOLAS	Manecke	Messina			Messina				Menecke	P346
4				R	RCOM	Pingstmont				Las Palmas		30-06
5		Mindelo		R	Kret Meer	Pingstmo.				Lisabon	R	5. Dezember
6		P332/2	GeoB			15-06	P340			R	ESTOC	
7			ESTOC			Hübscher	35-06			P343		
8		Achterberg		P335		18.06		Verankerung			Las Palmas	
9		MERC			Geotach.	Columbus				Cuningham		
10	WERFT	Kapverden	Las Palmas	Taufer-Ladung		Saintout	Pateros			MERC		
11			L				IFM-GEOMAR			Tauschzeit	P345	
12						Selenik	Flemingo				48-06	Kapverden
13		Tauschzeit	L	IFREMER		Prilus	Thylf. Meer			RAPID		Häraden
14			L				Vigo					
15		SOLAS										
16			14-06									
17			Schutz								Las Palmas	
18								P342				
19												
20			UT		P337		Zonenwid			P344/1		Kapverden
21			Azorenfront		Golf v. Salmu		53-06			Transit	51-06	21
22												Las Palmas
23	Las Palmas	Las Palmas										
24	R	L					Aglio					
25	R	L					GeoB					
26	P332/1	L					Heraklion					
27		L					Süd. Adria					
28		R										
29												
30	Achterberg				P336		19-06					
31	MERC						Prilus					

R = Rottag L = Liegetag © = Verfügbarkeit

Fest bis 21. Dezember 2006 vorbehaltlich anstehender Befürwortungen durch Steuergruppe
Stand: 26. Januar 2006

Änderungen vorbehalten



6. Entwurf 2006

FS MARIA S. MERIAN

	JAN	FEB	MAR	APR	MAI	JUN	JUL	AUG	SEP	OKT	NOV	DEZ
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												

UNIVERSITÄT HAMBURG
ZENTRUM FÜR MEERES- UND KLIMAFORSCHUNG
INSTITUT FÜR MEERESKUNDE
LEITSTELLE

KOORDINATOR: MSM01 v. Bodungen
MSM02 Schauer
MSM03 Kuhn

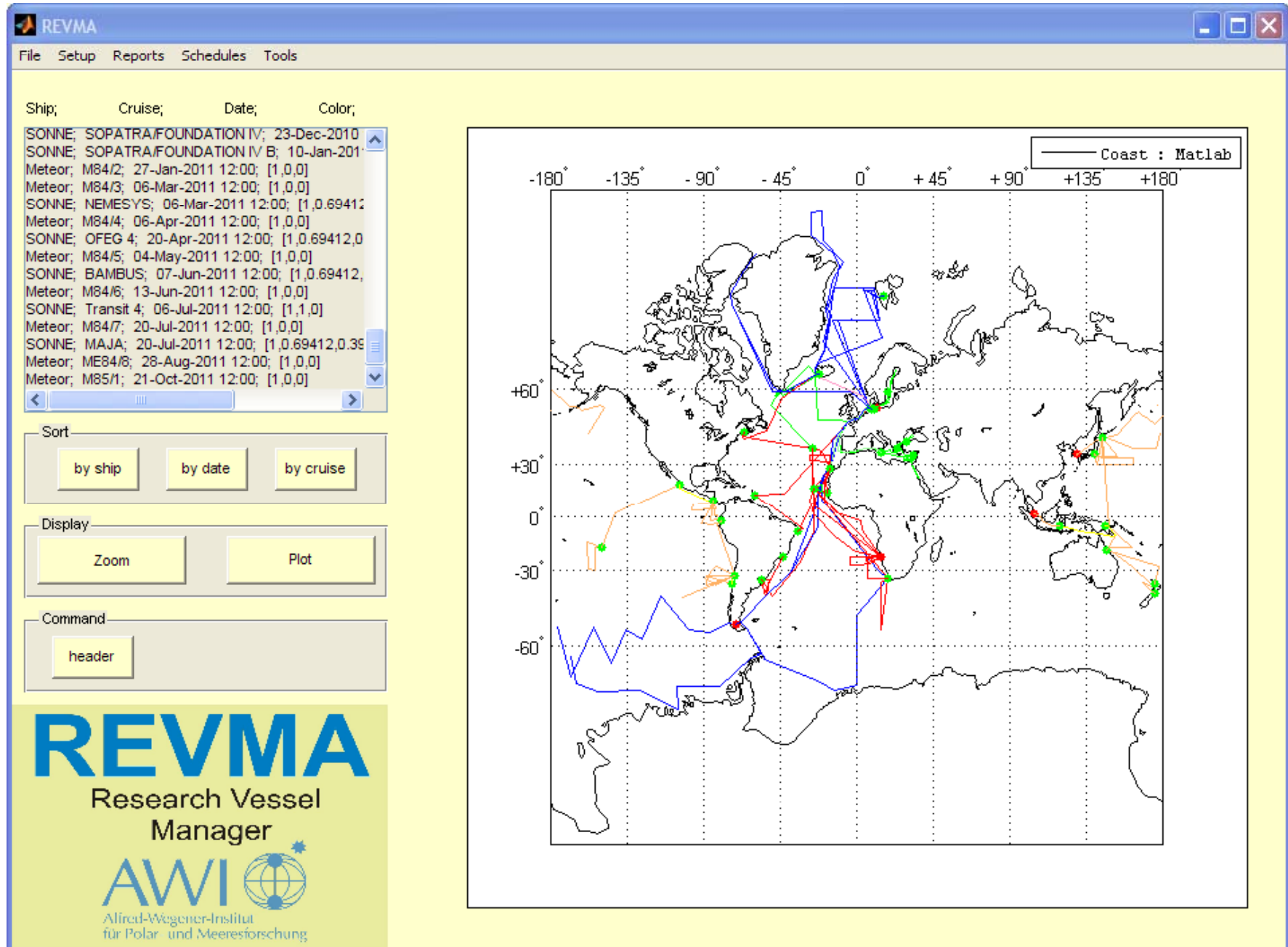
STAND: 22.02.2006

Bis MSM03/3 von der SKOZ
so festgelegt, danach un-
verbindliche Rahmenplanung

What can be done if cruise plans exists
in uniform electronic format?

Showing examples with the
software **REVMA**
(Research Vessel Manager)

Displaying different cruises



The screenshot displays the REVMA (Research Vessel Manager) software interface. The window title is "REVMA" and the menu bar includes "File", "Setup", "Reports", "Schedules", and "Tools".

Ship, Cruise, Date, Color:

Ship	Cruise	Date	Color
SONNE	SOPATRA/FOUNDATION IV	23-Dec-2010	
SONNE	SOPATRA/FOUNDATION IV B	10-Jan-2011	
Meteor	M84/2	27-Jan-2011 12:00	[1,0,0]
Meteor	M84/3	06-Mar-2011 12:00	[1,0,0]
SONNE	NEMESYS	06-Mar-2011 12:00	[1,0.69412
Meteor	M84/4	06-Apr-2011 12:00	[1,0,0]
SONNE	OFEQ 4	20-Apr-2011 12:00	[1,0.69412,0
Meteor	M84/5	04-May-2011 12:00	[1,0,0]
SONNE	BAMBUS	07-Jun-2011 12:00	[1,0.69412,
Meteor	M84/6	13-Jun-2011 12:00	[1,0,0]
SONNE	Transit 4	06-Jul-2011 12:00	[1,1,0]
Meteor	M84/7	20-Jul-2011 12:00	[1,0,0]
SONNE	MAJA	20-Jul-2011 12:00	[1,0.69412,0.39
Meteor	ME84/8	28-Aug-2011 12:00	[1,0,0]
Meteor	M85/1	21-Oct-2011 12:00	[1,0,0]

Sort: by ship, by date, by cruise

Display: Zoom, Plot

Command: header

Map: A world map showing cruise tracks. The map includes a coordinate grid with longitude from -180° to +180° and latitude from -60° to +60°. A legend in the top right corner indicates "Coast : Matlab". The tracks are color-coded: blue for the North Atlantic and Arctic regions, red for the North Pacific, orange for the South Pacific, and green for the Indian Ocean and Southeast Asia. Green dots are scattered across the map, likely representing data collection points.

REVMA
Research Vessel
Manager

AWI
Alfred-Wegener-Institut
für Polar- und Meeresforschung

Search for an instrument

The screenshot displays the REVMA (Research Vessel Manager) software interface. The main window shows a list of cruises on the left, including ship names like SONNE and Meteor, and dates. A search window titled "guiSearchInstr" is overlaid, titled "Search Instrument and Identify Cruise".

The search window is divided into two main sections:

- Show used instruments:** A dropdown menu shows "R", and a list box contains "ROVB", "ROVK", "ROD", and "ROV".
- Show and select descriptions:** A list box titled "All related instrument descriptions" contains "remote operating vehicle; ROV" and "rov (kiel); ROV". Below this is an "add" button.

Below the descriptions is a section titled "Selections for identifications" with a "delete" button. This section contains a list box with "remote operating vehicle; ROV" (highlighted), "rov (kiel); ROV", "rov kiel6000; ROVK", and "rov kiel; ROVK". An "identify cruise" button is at the bottom right of this section.

A "search" button is located at the bottom left of the search window. The background shows a map of the North Atlantic region with a coastline and a legend for "Coast : Matlab".

REVMA
Research Vessel
Manager
AWI
Alfred-Wegener-Institut
für Polar- und Meeresforschung

Viewing the search result

The screenshot displays the REVMA (Research Vessel Manager) software interface. The window title is "REVMA" and the menu bar includes "File", "Setup", "Reports", "Schedules", and "Tools".

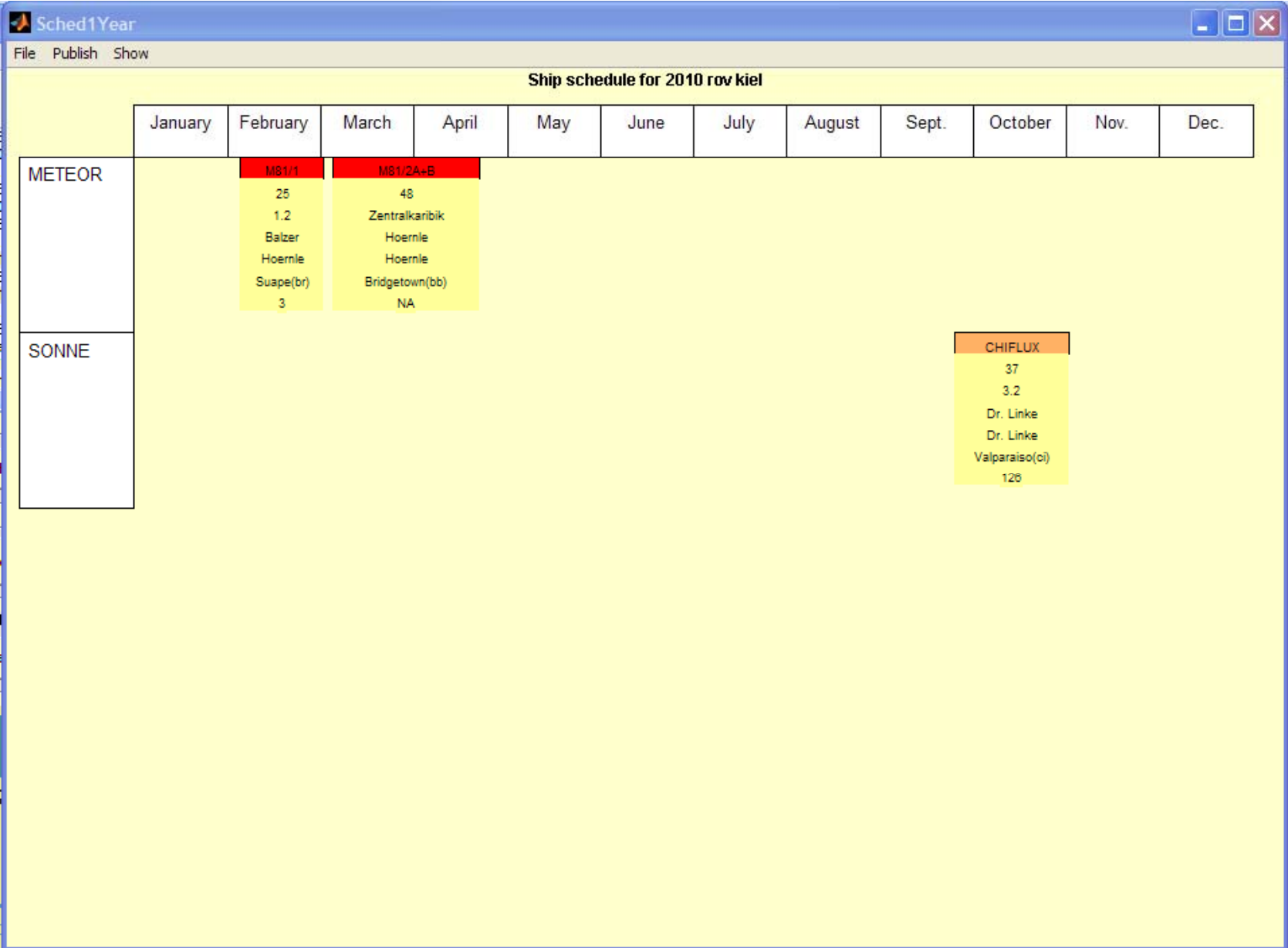
The main area is divided into two sections:

- Search Results List:** A table with columns "Ship", "Cruise", "Date", and "Color". The results are as follows:

Ship	Cruise	Date	Color
MERIAN; MSM13/4	21-Nov-2009 12:00	[0,1,0]	
Meteor; M80/2	26-Nov-2009 12:00	[1,0,0]	
Polarstern; ANT-XXVI/2	27-Nov-2009 12:00	[0,0,1]	
MERIAN; MSM14/1	17-Dec-2009 12:00	[0,1,0]	
Meteor; M80/3	29-Dec-2009 12:00	[1,0,0]	
MERIAN; MSM14/2	17-Jan-2010 12:00	[0,1,0]	
Polarstern; ANT-XXVI/3	30-Jan-2010 12:00	[0,0,1]	
Meteor; M81/1	04-Feb-2010 12:00	[1,0,0]	
MERIAN; MSM14/3	01-Mar-2010 12:00	[0,1,0]	
Meteor; M81/2A+B	04-Mar-2010 12:00	[1,0,0]	
Polarstern; ANT-XXVI/4	07-Apr-2010 12:00	[0,0,1]	
MERIAN; MSM14/4	08-Apr-2010 12:00	[0,1,0]	
SONNE; Transit 2	13-Apr-2010 12:00	[1,1,0]	
SONNE; OFEG 3	21-Apr-2010 12:00	[1,0.69412,0]	
Meteor; M81/2C	23-Apr-2010 12:00	[1,0,0]	
- Map:** A world map showing search paths. The map includes a coordinate grid from -180° to +180° longitude and -60° to +60° latitude. A legend in the top right corner indicates "Coast : Matlab". The search paths are color-coded according to the results list: blue (e.g., MSM13/4, MSM14/2, MSM14/3, MSM14/4), red (e.g., M80/2, M80/3, M81/1, M81/2A+B, M81/2C), green (e.g., ANT-XXVI/2, ANT-XXVI/3, ANT-XXVI/4), and orange (e.g., Transit 2, OFEG 3). Two blue arrows point from the search results list to the map, indicating that the selected entries are being visualized on the map.

At the bottom left, the REVMA logo is displayed, along with the text "Research Vessel Manager" and the AWI logo (Alfred-Wegener-Institut für Polar- und Meeresforschung).

Viewing the search result as bar diagram



Viewing the search result: the map

The screenshot displays the REVMA (Research Vessel Manager) software interface. The window title is "REVMA" and the menu bar includes "File", "Setup", "Reports", "Schedules", and "Tools".

Search Results Table:

Ship;	Cruise;	Date;	Color;
Polarstern; ANT-XXVIII/1;	25-Oct-2010 12:00;	[0,0,1]	
MERIAN; MSM15/1;	31-Oct-2010 12:00;	[0,1,0]	
SONNE; CHIMEBO;	06-Nov-2010 12:00;	[1,0.69412]	
Meteor; M83/2;	14-Nov-2010 12:00;	[1,0,0]	
Polarstern; ANT-XXVIII/2;	27-Nov-2010 12:00;	[0,0,]	
SONNE; Werft;	01-Dec-2010 12:00;	[1,1,0]	
Meteor; M84/1;	19-Dec-2010 12:00;	[1,0,0]	
SONNE; SOPATRA/FOUNDATION IV;	23-Dec-2010		
SONNE; SOPATRA/FOUNDATION IV B;	10-Jan-201		
Meteor; M84/2;	27-Jan-2011 12:00;	[1,0,0]	
Meteor; M84/3;	06-Mar-2011 12:00;	[1,0,0]	
SONNE; NEMESYS;	06-Mar-2011 12:00;	[1,0.69412]	
Meteor; M84/4;	06-Apr-2011 12:00;	[1,0,0]	
SONNE; OFEG 4;	20-Apr-2011 12:00;	[1,0.69412,0]	
Meteor; M84/5;	04-May-2011 12:00;	[1,0,0]	

Sort Options: by ship, by date, by cruise

Display Options: Zoom, Plot

Command: header

Map: A world map showing the global distribution of research vessels. The map includes a coordinate grid with longitude from -180° to +180° and latitude from -60° to +60°. A legend in the top right corner indicates "Coast : Matlab". Data points are plotted on the map, with red lines connecting several points in the North Atlantic and Indian Ocean regions.

REVMA Research Vessel Manager
AWI Alfred-Wegener-Institut für Polar- und Meeresforschung

Cruises of 4 vessels planned for year 2010

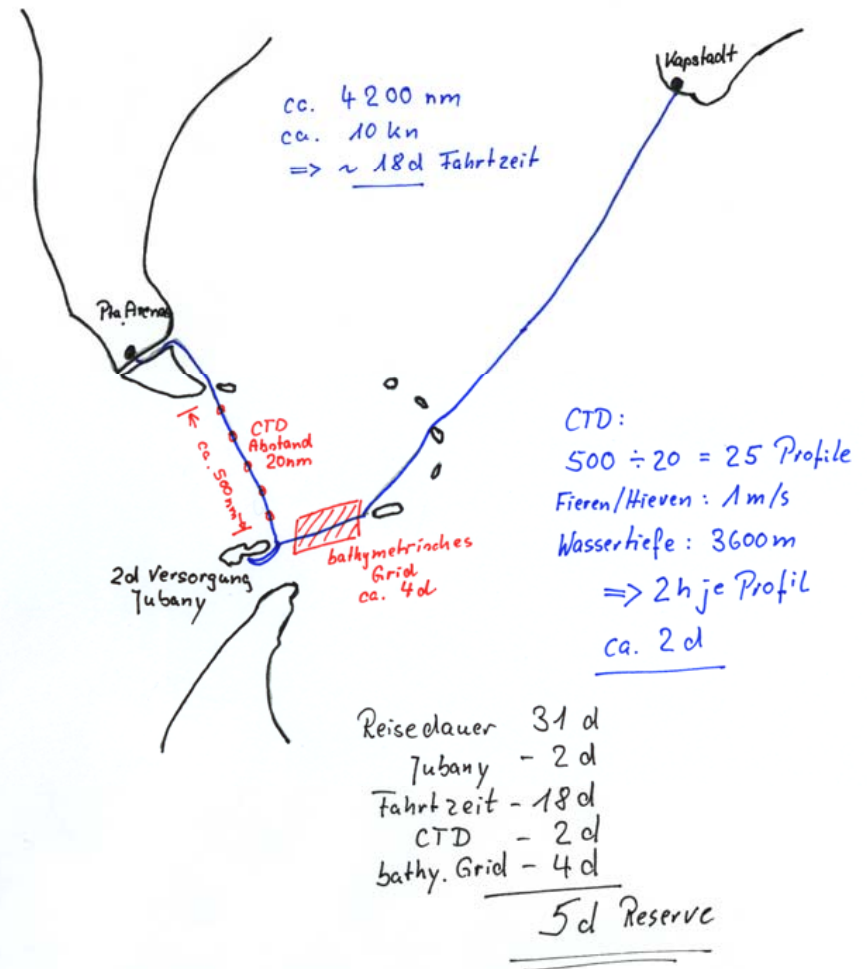
Sched1Year
File Publish Show

Ship schedule for 2010

	January	February	March	April	May	June	July	August	Sept.	October	Nov.	Dec.
MERIAN		MSM14/2 40 Rotes Meer Ehrhardt NN Limassol(cy) 3	MSM14/3 35 Hübscher NN Limassol(cy) 3	MSM14/4 30 Boetius NN 12.5 3	13 22 13.2 NN 13.5 3	MSM14/6 29 14.2 Huhn/Kopf NN 14.5 3	15 16 15.1 16.1 15.2 16.2 15.3 16.3 15.4 16.4 15.5 16.5 15.6 16.6	17 21 17.2 17.3 NN 17.5 28	18 18.1 18.2 18.3 18.4 18.5 18.6	MSM14/9 32 19.2 19.3 NN Mindelo(cv) 3	MSM15/1 38 NW Afrika 20.3 NN Mindelo(cv) NA	
METEOR		M81/1 25	M81/2A+B 48	31 20	WERFT-1 32 Werft NN NN amburg(gm) 3	33 33.1 33.2 33.3 33.4 33.5 33.6	M82/1 33 Nordatlantik Quadfasel NN St John(ca) 3	M82/2 21 35.2 Rhein NN 35.5 3	M82/3 40 Azoren Dullier NN Mindelo(cv) 3	M83/1 31 37.2 Visbeck Visbeck 37.5 3	M83/2 32 38.2 Christiansen Visbeck 38.5 3	39 39.1 39.2 39.3 39.4 39.5 39.6
Description for: One-year schedule of 2010												
Cruises representing a shortcut:												
POLARSTERN	<p>SHORTCUT: 11 11.0 Cruise: MSM14/3 11.1 Cruise duration (in days): 35 11.2 Description: östliches Mittelmeer 11.3 Chief scientist: Hübscher 11.4 Coordinator: NN 11.5 Arrival port: Limassol(cy) 11.6 Time to next cruise (in days): 3</p>											
SONNE	<p>SHORTCUT: 12 12.0 Cruise: MSM14/4 12.1 Cruise duration (in days): 30 12.2 Description: Schwarzes Meer 12.3 Chief scientist: Boetius 12.4 Coordinator: NN 12.5 Arrival port: Istanbul(tu) 12.6 Time to next cruise (in days): 3</p>											
	ARK-XXV/1 49 ACOBAR NN E. Fahrbach Reykjavik(ic) 2	ARK-XXV/2 71 Baffin Bay, Nares Strait, NN E. Fahrbach Bremerhaven(gm) 15	ANT-XXVII/1 31 Transfer NN E. Fahrbach 58.5 2	ANT-XXVII/2 68 59.2 NN E. Fahrbach 59.5 NA	AN 69.1 69.2 69.3 69.4 69.5 69.6	70 18 70.2 70.3 70.4 70.5 3	71 22 71.2 71.3 71.4 71.5 3	PLUMEFUX 43 72.2 Prof. Hoernle Prof. Hoernle Guayaquil(ec) 2	73 73.1 73.2 73.3 73.4 73.5 73.6	CHIFLUX 37 74.2 Dr. Linke Dr. Linke Valparaiso(oj) 6	75 20 75.2 75.3 75.4 75.5 5	Werft 20 77.1 77.2 77.3 77.4 77.5 77.6

Criticism: "It is to much work to edit all cruise plans for REVMA!"

Reise: Kapstadt - Punta Arenas
1. Jan. 06 bis 1. Feb. 06



Creating electronic cruise plans – quick and easy

Showing examples with the
software **PERPLEX**

(**P**rogram for **E**xpedition **R**oute **P**lanning and **E**xecution)

The PERPLEX GUI

PERPLEX D:\bck\Perplex_Cruise\ANT-XXVII-2\ANT-XXVII-2-V4.mat

File Edit Setup Tools Utilities Help

Station **23** Cast **1** Date/Time **09-Dec-2010 07:45** Position **59° 4.2' S 0° 4.47' E** Waterdepth **4817** Remarks **MOOR/R**

Stations

No	DateTime	Lat	Long	Depth	Speed(kn)	Stop(h)	No of Casts	Na
11	06-Dec-2010 19:41:36	-53.5000	0.0025	2589	10.0	Na		
12	07-Dec-2010 00:29:27	-53.9980	0.0017	2591	10.0	Na		
13	07-Dec-2010 05:22:42	-54.5105	0.0302	1575	10.0	Na		
14	07-Dec-2010 09:38:12	-55.0038	0.0050	1630	10.0	Na		
15	07-Dec-2010 13:56:54	-55.5015	0.0043	3214	10.0	Na		
16	07-Dec-2010 17:10:54	-55.6864	0.0003	3676	10.0	Na		
17	07-Dec-2010 21:25:16	-56.0000	0.0010	3676	10.0	Na		
18	08-Dec-2010 02:45:46	-56.4972	0.0012	4123	10.0	Na		
19	08-Dec-2010 08:07:46	-56.9607	0.0270	4260	10.0	Na		
20	08-Dec-2010 14:00:40	-57.4985	-0.0010	4375	10.0	Na		
21	08-Dec-2010 19:43:05	-57.9977	0.0047	4010	10.0	Na		
22	09-Dec-2010 01:15:33	-58.5000	-0.0047	5096	10.0	Na		
23	09-Dec-2010 07:45:51	-59.0700	0.0745	4817	10.0	Na		
24	09-Dec-2010 22:19:33	-59.1683	0.0040	5050	10.0	Na		
25	10-Dec-2010 08:17:59	-59.4970	-0.0075	5393	10.0	Na		
26	10-Dec-2010 14:32:37	-60.0000	-0.0003	5317	10.0	Na		
27	10-Dec-2010 20:43:15	-60.4983	-0.0005	5391	8.0	Na		
28	11-Dec-2010 03:42:24	-60.9997	0.0033	5299	8.0	Na		
29	11-Dec-2010 10:38:08	-61.4997	-0.0017	5212	8.0	Na		

Casts

DateTime	Period(hh:mm)	Delay(hh:mm)	Profile	Depth(m)	Instrument
10 07:45:51	8: 0	0: 0	4817	MOOR/R	BONGO
10 15:45:51	3: 0	0: 0	4817	MOOR/D	CTD/RO
10 18:45:51	2: 56	0: 0	4817	CTD/RO	Cast01.txt

Inputs: Speed (kn) Profile Depth (m) Radius in nm Plot Circle

Comment: Recovery AW227-9

Plotting Tools: RMT GRID Full Map Bransfield Str Greenwich Section Section North

Remaining Days to...: Neumayer 0 (3h) Punta Arenas(ci) 2 (12h)

Auto Sorting: on off Optimize on off State

The map displays a cruise track starting at Punta Arenas (ci) in the Antarctic Peninsula, heading east towards the South Atlantic Ocean, and then north towards Cape Town (sf) in South Africa. The track is marked with red dots and lines, indicating depth measurements. A vertical red line segment near the equator shows a depth profile. The map includes a coordinate grid from 75°W to 15°E and 35°S to 70°S. Key locations like Punta Arenas (ci) and Neumayer are labeled. A red hatched area is visible near the Antarctic Peninsula.

Example how to use external data

PERPLEX D:\bck\Perplex_Cruise\ANT-XXVII-2\ANT-XXVII-2-V4.mat

File Edit Setup Tools Utilities Help

Station **23** Cast **1** Date/Time **09-Dec-2010 07:45** Position **59° 4.2' S 0° 4.47' E** Waterdepth **4817** Remarks **MOOR/R**

Stations

No	Date/Time	Lat	Long	Depth	Speed(kn)	Stop(h)	No of Casts	Na
11	06-Dec-2010 19:41:36	-53.5000	0.0025	2589	10.0	Na		
12	07-Dec-2010 00:29:27	-53.9980	0.0017	2591	10.0	Na		
13	07-Dec-2010 05:22:42	-54.5105	0.0302	1575	10.0	Na		
14	07-Dec-2010 09:38:12	-55.0038	0.0050	1630	10.0	Na		
15	07-Dec-2010 13:56:54	-55.5015	0.0043	3214	10.0	Na		
16	07-Dec-2010 17:10:54	-55.6864	0.0003	3676	10.0	Na		
17	07-Dec-2010 21:25:16	-56.0000	0.0010	3676	10.0	Na		
18	08-Dec-2010 02:45:46	-56.4972	0.0012	4123	10.0	Na		
19	08-Dec-2010 08:07:46	-56.9607	0.0270	4260	10.0	Na		
20	08-Dec-2010 14:00:40	-57.4985	-0.0010	4375	10.0	Na		
21	08-Dec-2010 19:43:05	-57.9977	0.0047	4010	10.0	Na		
22	09-Dec-2010 01:15:33	-58.5000	-0.0047	5096	10.0	Na		
23	09-Dec-2010 07:45:51	-59.0700	0.0745	4817	10.0	Na		
24	09-Dec-2010 22:19:33	-59.1683	0.0040	5050	10.0	Na		
25	10-Dec-2010 08:17:59	-59.4970	-0.0075	5393	10.0	Na		
26	10-Dec-2010 14:32:37	-60.0000	-0.0003	5317	10.0	Na		
27	10-Dec-2010 20:43:15	-60.4983	-0.0005	5391	8.0	Na		
28	11-Dec-2010 03:42:24	-60.9997	0.0033	5299	8.0	Na		
29	11-Dec-2010 10:38:08	-61.4997	-0.0017	5212	8.0	Na		

Casts

Date/Time	Period(hh:mm)	Delay(hh:mm)	Profile	Depth(m)	Instrument
10 07:45:51	8: 0	0: 0	4817	MOOR/R	BONGO
10 15:45:51	3: 0	0: 0	4817	MOOR/D	CTD/RO
10 18:45:51	2: 56	0: 0	4817	CTD/RO	Cast01.txt

Inputs: Speed (kn) Profile Depth (m) Radius in nm Plot Circle

Comment: Recovery AW227-9 Add

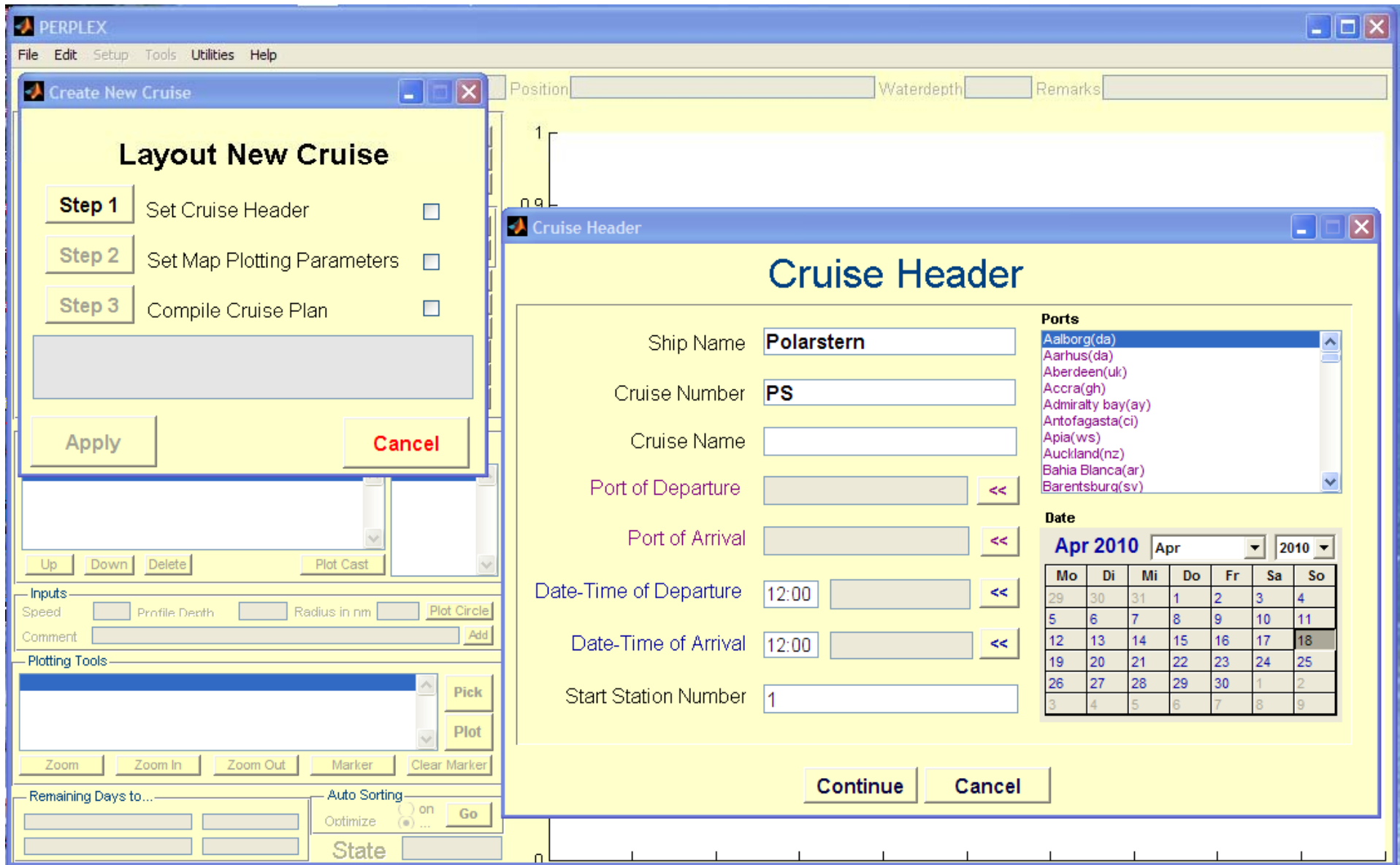
Plotting Tools: Bransfield Str, Greenwich Section, Section North, World, Sea Ice 30 Dec 2009

Remaining Days to...: Neumayer 0 (3h), Punta Arenas(ci) 2 (12h)

Auto Sorting: on off Go

State

"Utilities-Generate Cruise" can be used instead to create a number of new cruises.



"Utilities-Generate Cruise" reads the inputs from EXCEL spread sheet.

POLARSTERN.xls [Kompatibilitätsmodus] - Microsoft Excel nichtkommerzielle Verwendung

Start Einfügen Seitenlayout Formeln Daten Überprüfen Ansicht Add-Ins Acrobat

A18

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
	SHIP	CRNUM	CRUISE	DEPPORT	DEPDATE	ARRPORT	ARRDATE	INSTITUTE	COUNTRY	CAPTAIN	COORDINAT	CHIEF	EDITOR	DESCRIPTION	CONSTRAINT	HELLI	PARTICIPANT		
1																			
2	Palastern	P528	ARK-XXXIV	BREMERHAVEN[GH]	23-Jul-2007 12:00	TROMSO[OH]	25-Jul-2007 12:00	Alfred-Wegener-Institut	Germany	HH	HH	Klinge	G. Rukard	Medic. Seeforschungsbioleg, IPY HERMES	xxxx	1	1		
3	Palastern	P528	ARK-XXXIV	TROMSO[OH]	28-Jul-2007 12:00	BREMERHAVEN[GH]	18-Oct-2007 12:00	Alfred-Wegener-Institut	Germany	HH	U.Sakow	U.Sakow	G. Rukard	IPY 2007	xxxx	1	1		
4	Palastern	P524	ANT-XXXIV	BREMERHAVEN[GH]	26-Jul-2007 12:00:00	CAPE TOWN[SP]	26-Jul-2007 12:00	Alfred-Wegener-Institut	Germany	HH	E. Fabrikus	S. Sakiel	G. Rukard	Tranelli Biology	xxxx	1	1		
5	Palastern	P524	ANT-XXXIV	CAPE TOWN[SP]	28-Jul-2007 12:00	CAPE TOWN[SP]	06-Feb-2008 12:00	Alfred-Wegener-Institut	Germany	HH	E. Fabrikus	U. Björnsen	G. Rukard	IPY, IANIGLA, Supply Manager	xxxx	1	1		
6	Palastern	P524	ANT-XXXIV	CAPE TOWN[SP]	02-Feb-2008 12:00	PUNTA ARENAS[CI]	10-Sep-2008 12:00	Alfred-Wegener-Institut	Germany	HH	HH	E. Fabrikus	G. Rukard	Hydrobiol. Exp., Drake Passage, Supply Manager/Joburg/Physiography, geoscience, IPY CR19, GEOTRACES	xxxx	2	1		
7	Palastern	P524	ANT-XXXIV	PUNTA ARENAS[CI]	10-Sep-2008 12:00:00	BREMERHAVEN[GH]	28-Jul-2008 12:00:00	Alfred-Wegener-Institut	Germany	HH	E. Fabrikus	H. Mader	G. Rukard	Tranelli	xxxx	1	1		
8	Palastern	P522	ARK-XXXIII	BREMERHAVEN[GH]	18-Jul-2008 12:00	LONGYEARBYEN[SV]	01-Jul-2008 12:00	Alfred-Wegener-Institut	Germany	HH	HH	G. Rukard	G. Rukard	General Sci/Phys. oceanography, biology, plankton genetics, IPY	xxxx	2	1		
9	Palastern	P522	ARK-XXXIII	LONGYEARBYEN[SV]	03-Jul-2008 12:00	TROMSO[OH]	05-Aug-2008 12:00	Alfred-Wegener-Institut	Germany	HH	HH	G. Kallwe	G. Rukard	From Strain/Phys. oceanography, biology, plankton genetics, IPY DAMOCLES	xxxx	2	1		
10	Palastern	P522	ARK-XXXIII	TROMSO[OH]	07-Aug-2008 12:00	BREMERHAVEN[GH]	24-Jul-2008 12:00	Alfred-Wegener-Institut	Germany	HH	HH	W. Jahn	G. Rukard	Medic. Ocean, Seology, geophysics, phys. oceanography, biology, HELISCHT, IPY DAMOCLES	xxxx	2	1		
11	Palastern	P523	ANT-XXXIV	BREMERHAVEN[GH]	04-Aug-2008 12:00	PUNTA ARENAS[CI]	07-Dec-2008 12:00	Alfred-Wegener-Institut	Germany	HH	HH	HH	G. Rukard	Tranelli	xxxx	1	1		
12	Palastern	P523	ANT-XXXIV	PUNTA ARENAS[CI]	03-Dec-2008 12:00	WELLINGTON[NZ]	04-Feb-2009 12:00	Alfred-Wegener-Institut	Germany	HH	HH	B. Graedel	G. Rukard	South Pacific, Supply/Manoe. geoscience, kalkogen, biology, IPY SIPOMAC	xxxx	1	1		
13	Palastern	P523	ANT-XXXIV	WELLINGTON[NZ]	07-Feb-2009 12:00	BUNTA ARENAS[CI]	08-Aug-2009 12:00	Alfred-Wegener-Institut	Germany	HH	HH	K. Gahl	G. Rukard	South Pacific, Supply/Manoe. geoscience, kalkogen	xxxx	1	1		
14	Palastern	P523	ANT-XXXIV	PUNTA ARENAS[CI]	10-Aug-2009 12:00	BREMERHAVEN[GH]	10-May-2009 12:00	Alfred-Wegener-Institut	Germany	HH	HH	HH	G. Rukard	Tranelli	xxxx	1	1		
15	Palastern	P524	ARK-XXXIV	BREMERHAVEN[GH]	02-Jul-2009 12:00	TROMSO[OH]	10-Jul-2009 12:00	Alfred-Wegener-Institut	Germany	HH	HH	HH	G. Rukard	General Sci., Biology, plankton genetics/IPY DAMOCLES	xxxx	1	1		
16	Palastern	P524	ARK-XXXIV	TROMSO[OH]	18-Jul-2009 12:00	TROMSO[OH]	05-Aug-2009 12:00	Alfred-Wegener-Institut	Germany	HH	HH	HH	G. Rukard	Manoeuling, Harbor Master	xxxx	2	1		
17	Palastern	P524	ARK-XXXIV	TROMSO[OH]	11-Aug-2009 12:00	BREMERHAVEN[GH]	11-Oct-2009 12:00	Alfred-Wegener-Institut	Germany	HH	HH	HH	G. Rukard	Harbore General Sci., Geophysics, IPY	xxxx	2	1		
18																			
19																			
20																			
21																			
22																			
23																			
24																			
25																			
26																			
27																			
28																			

H < > >> Tabelle1 Tabelle2 Tabelle3

Bereit 55%

Summary

- REVMA is a toolbox within PERPLEX
- PERPLEX can be downloaded from: <http://perplex.awi.de> or send email to: Gerd.Rohardt@awi.de
- Ask for longer testing period if needed (standard is 12 month)
- License fee ranges between 100 and 1200 Euros
- Outlook for next release:
 - Manual for REVMA
 - Define Grid (includes waypoints for different calibration tracks) for seismic or bathymetric surveys
 - Define Section: compute positions for equal latitude- or longitude spacing
 - Free text editing for printed station plans
 - Real time plotting of ship positions
 - Import of specific data formats used as “User Defined Contours”
 - 3D-GEBCO contour of selected map area
 - Show sunset and sunrise for selected waypoints or stations
- Long-term outlook:

Working on a support for PERPLEX and REVMA after year 2020!