

MapuSoft Technologies 1.3.3 Release Notes

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Release 1.3.3
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Revision 1

These release notes accompany Release 1.3.3 of MapuSoft Technologies. They briefly describe new hardware and software features and provide a summary of the current software limitations and known defects that exists in this release.

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Updated Features of MapuSoft Products

Release 1.3.3, build 5655 of MapuSoft Technologies encompasses all upgrades to MapuSoft's OS Abstractor, OS Changer, and OS PAL Solutions. These package components are as follows:

No	Product Name	Version
1	Demo_osabstractor	3.5.2.5360
2	Demo_osabstractor_posix	3.5.2.5606
3	Demo_oschanger_nucleus	3.5.2.5607
4	Demo_oschanger_psos	3.5.2.5363
5	Demo_oschanger_vxworks	3.5.2.5608
6	Include	3.5.2.5534
7	osabstractor_linux	3.5.2.5644
8	Osabstractor_lynxos	3.5.2.5645
9	osabstractor_mqx	3.5.2.5578
10	osabstractor_nucleus	3.5.2.5579
11	osabstractor_posix	3.5.2.5542
12	osabstractor_qnx	3.5.2.5646
13	osabstractor_solaris	3.5.2.5648
14	osabstractor_threadx	3.5.2.5622
15	osabstractor_uitron	3.5.2.5583
	osabstractor_vxworks	3.5.2.5612
16	osabstractor_windows	3.5.2.5647
17	oschanger_nucleus	3.5.2.5540
18	oschanger_psos	3.5.2.5537
19	oschanger_vxworks	3.5.2.5539
20	OS_PAL	1.3.3.5655

OS Abstractor

- **Signal**—Provides flexibility to a signal to arrive for a specific task anytime, irrespective of whether the task is running or suspended. When a signal arrives for a task which is running, the task is interrupted (temporarily suspended) to run the appropriate signal handler. When a signal arrives for a task which is suspended, first the appropriate invoked transparently and optionally (for certain target OS) the suspended thread can also be woken up with a signal interrupt return code to notify a running task that a signal was received.

- **New APIs**—Added the following new APIs.
 - **OS_Register_Signal**—This provides the ability to register a signal handler for the specified signals.
 - **OS_Send_Task_Signal**—This sends a signal to the specified thread. If no signal handler is registered, the signal will be ignored.
 - **OS_Send_Process_Signal**—This sends a signal to the specified process. If no signal handler is registered, the signal will be ignored.
 - **OS_Control_Signal**—This changes the operational characteristics of the signals. It can be used to enable or disable a set of signals, or to change the suspension handling of the signals.
 - **OS_Get_Signal_Handler**—This retrieves the handler function currently registered with the signal. The parameter signo must contain only one signal.
 - **Signal Handler Routine**—The signal handler routine is supplied by the user application and is registered using the **OS_Register_Signal** API
 - **New Error Codes**—**OS_ERR_SIGNAL_INTERRUPT** and **OS_WAKE_ON_SIGNAL** are the new error codes.

- **Modified APIs** — modified the following APIs.
 - None

OS Changer

No new features are added to the OS Changer product for release 1.3.3 apart from adding fixes to known bugs.

OS PAL

- **Application Function Profiling**—OS Profiler initially supported profiling OS Abstractor Basic APIs. Profiling is now extended to support Application functions. Users can add application functions that are required to be profiled via GUI within OS PAL.
- **Integration of Standalone Products**—Provides ability to the users to generate standalone OS Abstractors and OS Changers from OS PAL. Users can pick the API sets (POSIX, Basic, VxWorks, Nucleus, pSOS) for a specific target OS and generate a full source code libraries that include sample demos and project files based on the purchased licenses. Users can also get updates to standalone releases within OS PAL from OS PAL remote update site.

Outstanding Issues

The following are the outstanding issues for the release 1.3.3:

Bug ID	Severity	OS	Description
364	Major	Windows	Standalone Generator need to put API name in product name front of in second page of wizard
245	Major	Windows	Profiler sometimes reports negative values for function execution times
327	Major	Windows	alpha2->lx base test suite's test case test_bench1 failed
366	Major	Windows	unable to get user API hooks when function definition is prefaced with LOCAL

Known Problems

- Newly created OS PAL projects have problems debugging under separate console window. As a work around, you need to recreate the debug launch configuration which will fix the problem manually.
- The data in shared memory becomes corrupted when the last running OS Abstractor application is abnormally terminated on LynxOS 4.0 with OS Process mode turned on. The effect will be that OS Abstractor resources that were used by that application will be unusable by future applications. A restart of the LynxOS target will return all resources. This does not affect other versions of LynxOS.

Host and Target Feature OS Support

Target OS	OS Abstractor®		OS Changer®			OS PAL®		
	BASE	POSIX	VxWorks®	pSOS®	Nucleus®	Host	Target	Profiler
VxWorks® 6x	√	√		√	√		√	√
VxWorks® 5x	√	√		√	√		√	√
Linux® 2.4	√	√	√	√	√		√	√
Linux® 2.6	√	√	√	√	√	√	√	√
LynxOS®	√	√	√	√	√		√	√
LynxOS-SE®	√	√	√	√	√		√	√
Solaris®	√	√	√	√	√		√	√
Unix®	√	√	√	√	√		√	√
eCOS®	√	√	√	√	√			
Window®	√	√	√	√	√	√	√	√
WindowsCE®	√	√	√	√	√		√	√
Nucleus®	√	√	√	√			√	
ThreadX®	√	√	√	√	√		√	
MQX®	√	√	√	√	√		√	
QNX®	√	√	√	√	√		√	√
T-Kernel®	√	√	√	√	√			
ulTRON®	√	√	√	√	√		√	

OS PAL Release 1.3.3 Host System Requirements

No	Supported Host Platforms	System Requirements
1	Windows XP	Minimum 128 MB RAM
2	Windows Vista	Minimum 128 MB RAM
4	Linux 2.6	Minimum 128 MB RAM

Technical Support

Technical support is available through the MapuSoft Technologies Support Centre. If you are a customer with an active MapuSoft support contract, or covered under warranty, and need post sales technical support, you can access our tools and resources online or open a ticket at <https://www.mapusoft.com/support>.

Revision History

October 2008–Revision 1, Release 1.3.3 of MapuSoft Technologies.

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