Altair
Innovation Intelligence™

Altair® HyperWorks® 11.0
Supported Platform List

Platforms			Altair HyperWorks 11.0	
OS	**Version**	**Architecture**	**GUI Products**	**Solvers[1]**
Windows[2]	XP/Vista/7	x86	YES	YES[3]
		x86_64	YES	YES
	Server 2003/2008	x86	NO	YES[3]
		x86_64	NO	YES
Linux[4]	RHEL 5.4 SLED 11	x86	YES	YES[3]
		x86_64	YES	YES
		IA-64	NO	YES
	SGI ProPack 4 (SLES 9)[5]	IA-64	NO	YES
Unix	IBM AIX 5.3	Power 4/5	NO[6]	YES[7]
	Solaris 10	x86_64	NO	YES[8]
**Mac OS X[9]	10.6	x86_64	YES	YES[3]

****The Mac OS X package will not ship on the release DVD media of HyperWorks 11.0.**
It will only be available via the Altair website as a separate downloadable installer package.

[1] **HyperWorks Solver products include**:

- RADIOSS
- OptiStruct
- MotionSolve
- HyperXtrude solver

The HyperWorks solvers support AMD Opteron/Athlon64, Intel EM64T, Itanium2 (non-Windows based) and IBM AIX Power 4/5 processors and system architectures.
RADIOSS and OptiStruct provide H-MPP and SPMD parallelization using 3rd party MPIs and are Intel Cluster Ready compatible and certified.

NOTE:

- HTire, FTire and running MotionSolve for the MDL Wizard Library models is only supported on Windows and Linux 32-bit (x86) and 64-bit (x86_64) platforms.
- HyperWorks Solvers may be available or made available on platforms other than those listed as officially supported. Please contact an Altair regional support office or go to the Altair website under "*Contact Us*" and submit a query for more details.

[2] HyperWorks 11.0 products have a minimum requirement of the Microsoft Visual C++ 2005 SP1 (version 8.0.50727.4053) and solidThinking/Inspired requires 2008 SP1 (version 9.0.21022.8) redistributable package and these runtimes are distributed within the HyperWorks package. Process Manager, HyperMath and ScriptView are native 32-bit applications that are supported on both 32-bit and 64-bit Windows platforms.

[3] Only SMP parallelization is supported for HyperWorks 11.0 solvers on Windows (x86), Linux (x86) and Mac OS X (x86_64) architectures.

[4] **HyperWorks 11.0 Linux requirements (minimum versions):**

- Kernel version 2.6.9-42
    a) RedHat Enterprise Linux 5 Update 2 (2.6.18-53.el5)
    b) SUSE Linux Enterprise Desktop 11 (2.6.27.19-5)

- GLIBC version 2.3.4 (glibc-2.3.4-2.25) – includes native and compatible 32-bit packages
- GCC 3.4.3 (gcc 3.4.3 20050227) – includes native and compatible 32-bit packages
- LIBF2C (libf2c-3.4.3-22.1 and compat-libf2c-3.4.3-22.1) – "Fortran G77/G95" runtimes
- MotionSolve (HWSolvers) requirement: libgfortran-4.1.0-18.EL4 (32-bit/64-bit) or equivalent
- LIBEXPAT – XML library
- LIBSTDC++ packages: a) libstdc++-3.4.3-22.1 (libstdc++.so.6) – 64-bit/32-bit
  b) compat-libstdc++-33-3.2.3 (libstdc++.so.5)- 64-bit/32-bit

NOTE: Altair bundles custom Tcl/Tk 8.5.6 packages with HyperWorks 11.0 and sets the environment variable *XLIB_SKIP_ARGB_VISUALS=1* in the startup scripts, which may degrade GUI menu performance. To override this option set the variable *XLIB_SKIP_ARGB_VISUALS=0* within the system's or user's environment.

Additional Linux library packages (minimum versions):

- GNU BASH, version 3.00.15(1)-release
- POSIX shared memory (for 3D applications)/ELF TLS (thread local storage) libraries
- OpenGL packages/libraires (libGL 6.8.2-1, libGLU 6.8.2-1, etc.)
- X-org 6.8.2 packages (or XFree86 equivalent) and OpenMotif – libX11, libXm.so.3, libXp.so.6, etc.
- Vendor (NVIDIA or AMD/ATI) distributed OpenGL hardware accelerated driver packages
- Kernel source/header files (used to compile 3D NVIDIA/AMD ATI OpenGL vendor driver modules)
- Tools: rpm/fontconfig/freetype/zlib/gzip/tar/gtar
- Gnome 2.6/KDE 3.3 window managers (or higher)
- Fonts (scalable): Helvetica, Times, New Century schoolbook, b&h luxi sans/serif, typeface, bitstream vera sans/serif, iso8859-1 (75dpi/100dpi) and Utopia
- SDL 1.2.7-8 libraries to run Process Manager

NOTE: HyperWorks Enterprise Explore Dialog and Data Manager Browser are only supported on Windows platforms. HyperCrash does not support Linux 32-bit. HyperWorks 11.0 may install and run on other non-supported Linux distributions but Altair does not test, certify, verify or warrant the reliability of the products on these platforms.

a) Altair products are tested on the KDE and Gnome window manager.
b) Xen kernels are currently not supported kernels for Altair HyperWorks 11.0 applications.

[5] SGI ProPack 4 is available only for SGI Altix machines.

[6] HyperMesh Batch, BatchMesher, Templex and the HyperGraph translator tools will be available in command line execution mode under the IBM AIX 5.3 platforms. HyperView translator tool will also be available on Linux Itanium platforms. CAD formats for UG and CATIA v4/v5 data types are not supported under IBM AIX 5.3 for HyperMesh batch programs. HyperXtrude GUI component is included under the HyperWorks GUI supported platforms only.

[7] MotionSolve is not supported on IBM AIX platforms.

[8] HyperXtrude Solver is not supported on Solaris platforms.

[9] **Minimum versions for OS X (kernel) and X11 support:**

- OS X v.10.6 "Snow Leopard" (Darwin 10.6.0) and X11 2.3.5 (No Mac OS X PowerPC support)

Unsupported HyperWorks products under the Mac OS X: HyperCrash, HyperStudy, MotionView, HyperMath/ScriptView, Process Manager and Data Manager.

Unsupported third party CAD formats under the Mac OS X: UG, JT, ACIS, Parasolid, ProE, SolidWorks, STEP, CATIA v4/v5 are not available data types under the Mac OS X platform.

HyperWorks Solvers: will only support SMP computations on the Mac OS X 10.6 Intel (x86_64) architecture for HyperWorks 11.0.

Acronym	Description
RHEL	RedHat Enterprise Linux
SLED	SUSE Linux Enterprise Desktop
SLES	SUSE Linux Enterprise Server
MPI	Message Passing Interface
SMP	Symmetric Multi-processing. Processors connect to a single shared main memory.
SPMD	Single Program Multiple Data. Each processor has its own main memory.
H-MPP	Hybrid-Massive Parallel Processing. Hybrid parallelism, in which a SPMD program consists of nodes with several SMP threads.

Minimum System and Hardware Requirements for HyperWorks 11.0

The following table lists the minimum system requirements that are necessary to run any HyperWorks 11.0 (32-bit/64-bit) applications on the supported platforms.

System/Hardware Information	Unix/Linux	Windows

Operating Systems	• IBM AIX 5.3
	  ▪ GUI batch mode
	  ▪ Solvers
	• Linux RHEL 5.2/SLED 11
	• Sun Solaris 10 (x86_64)
	  ▪ Solvers only
		For 32-bit and 64-bit systems:
		• XP/Vista/7
		• Server 2003/2008
		  ▪ Solvers only

Memory	512 MB (higher recommended)	512 MB (higher recommended)
Complete Install Disk Space **Approximately 6 GB of free disk space is required for temporary install files (TMP) for a complete HyperWorks 11.0 installation in addition to the installed files space needed. The temporary files are removed upon the completion of the installer.**	• IBM AIX -> 4.2 GB • Linux 32-bit -> 5.8 GB • Linux 64-bit -> 6.4 GB • Solaris 10 (solvers)-> 621 MB	• Windows 32-bit -> 5.5 GB • Windows 64-bit -> 6.2 GB
Graphics Hardware	• OpenGL 3D graphics accelerator compatible with OpenGL 1.1 or higher • True color (24-bit) support • Install/update to most recent OpenGL patches/drivers • 1280x1024 screen resolution	• Windows compatible OpenGL graphics adapter compatible with OpenGL 1.1 or higher • 256 MB or higher dedicated video memory • High (16-bit) or True (24-bit) color support • Install/update to most recent OpenGL patches/drivers • 1280x1024 screen resolution
***Browsers/Online Help (plug-in)**	• Firefox 1.5 (or higher) • Java Plug-in required	• Firefox 1.5 (or higher) • Internet Explorer 7.0 (or higher) • ActiveX Plug-in required **Does not support "*Protected Mode*" under Internet Explorer

***NOTE:** Local Help installs may require modifying the browser to allow running active content from the hard disk. For search capability, the end-user needs a browser supporting either ActiveX (IE on Windows) or Java plug-in installed on their machine. For details on setting the Java plug-in for Linux, reference the information in the following link: http://www.java.com/en/download/help/linux_install.xml