



SYSTEM SPECIFICATIONS

Segami Corporation

OASIS HARDWARE SPECIFICATIONS

Rev 1.9.4.12 sp3

November 5, 2020

Page intentionally left blank

Oasis Client:

Note: This reflects the current client system when the PC hardware is provided and configured by Segami Corporation. Other hardware may be substituted but must meet or better these specifications in order for Oasis to be installed and/or supported.

Item	Description
Base Unit	Dell Precision 5820,CMT, 950W Power Supply
Chassis	Mini-Tower Chassis Configuration
Processor	Intel Xeon Processor W-2223 (4C, 3.6GHz 3.9GHz Turbo HT 8.25M)
Memory	16GB, 2x8GB, DDR4, 2666MHz, RDIMM, ECC Memory
Disk Controller	Integrated Intel SATA controller SW RAID 0/1/5/10
Hard Drive	1TB, 7200 RPM 3.5" SATA 6Gb/s Hard Drive
Operating System	Windows 10 Professional 64 bit
Video Card	NVIDIA Quadro P2200, 5GB, 4 DP
Network Adapter	On-board Single Gigabit Network Adapter (1000MB/s)
Optical Drives	16x Half Height DVD-/RW
Keyboard	Dell Wired Keyboard English Black
Mouse	Dell Wired Mouse Black
Productivity Software	Microsoft Office Home and Business 2019
Hardware Support	3 Year ProSupport with 3 Year NBD On-Site Service
Optional Hardware	2- 30" Dell Widescreen Monitors
Physical and Environmental Specs	
Wattage	950W Power Supply
Heat dissipation	2750.5 BTU/hr
Voltage	input voltage 100 VAC-240 AC
Backup battery	3-V CR2032 lithium coin cell
Height	16.45 inches (417.9 mm)
Width	6.95 inches (176.5 mm)
Depth	20.40 inches (518.3 mm)
Weight	29.8 lbs
Temperature Operating	5 °C to 35 °C (41 F to 95 °F)
Temperature Storage	-40 °C to 65 °C(-40 F to 149 F)
Relative humidity	8% to 85% (non-condensing)
Maximum vibration	Operating 0.52 Grms, 5 to 350 Hz Storage 2.0 Grms, 5 to 500 Hz

Recommended Oasis Client Monitor (2 per client)

Item	Description
Manufacturer	Dell
Model	UltraSharp with PremierColor UP3017
Panel Type	In-Plane Switching Technology
Screen size (diagonal)	30.0 inches (75.62 cm)
Orientation	Landscape
Native resolution	2560x1600
Aspect ratio	16:10
Physical and Environmental Specs	
Power Consumption Operational	54W (typical) / 108W (maximum) / 38.2W (Energy Star)
Power Consumption (On mode)	38.4 Watt
Power Consumption Standby/Sleep	Less than 0.3W
Power Consumption (Off mode)	Less than 0.3W
AC input voltage	100-240 VAC / 50 or 60 Hz ± 3 Hz / 1.6 A (Max.)
Operating Temperature	32° to 95°F (0°C to 35°C)
Non-operating Temperature	-4° to 140°F (-20 °C to 60 °C)
Humidity Range Operating	10 - 80% (non-condensing)
Dimensions (with stand)	
Height	19 inches
Width	27 inches
Depth	8.5 inches
Weight	28.8 lbs
Interfaces	1 x DP 1.2 (HDCP 1.4) 1 x mDP 1.2 (HDCP 1.4) 1 x DP 1.2 (out) with MST (HDCP 1.4) 2 x HDMI 1.4 (HDCP 1.4) 2 x USB 3.0 downstream port 2 x USB 3.0 with BC1.2 charging capability at 2A (max)

Note: Segami Corporation recommends the use of two 30” monitors for client systems used in a diagnostic workstation configuration. However, the Oasis software will auto-adapt to other single or dual monitor configurations (provided the sizes and resolutions are equal in a dual monitor setup). Best results are obtained with widescreen monitors (16:10 aspect ratio) in landscape format.

Recommended Oasis Server Specs

Item	Description
Manufacturer	Dell
Model	PowerEdge
Model number	R740
Chassis	Rack mount, 2U, up to 8 Hard Drives
Processor	Intel® Xeon® Silver 4210, 13.75M Cache, 9.6GT/s Turbo, 10C/20T 85W
CPU clock speed	2.20 GHz Single processor
RAM Memory	16GB RDIMM, 3200MT/s, Dual Rank
Operating System	Windows Server 2019, Standard Edition 64 bit
RAID controller	PERC H330 RAID Controller, Minicard
Hard drive configuration	RAID 1
Hard drive	2 X 1TB 7.2K RPM SATA 6Gbps 3.5" Hot Plug Hard Drive
Power Supply	Dual, Hot-plug, Redundant Power Supply (1+1), 495W + power cords
NIC card	Broadcom 5720 Quad Port 1GbE BASE-T, rNDC Network Daughter Card
Optical drive	DVD ROM, SATA, Internal
Server Accessories	Keyboard and Optical Mouse, USB, Black, English. ReadyRails™ Sliding Rails; Bezel
Hardware support services	3 Year ProSupport and NBD On-site Service
Physical and Environmental specifications	
Height	8.68cm (3.4")
Width	43.40cm (17.08")
Depth	73.75cm (29.03")
Weight (maximum config)	28.6kg (63.00lbs)
Operating Temperature	10° to 35°C (50° to 95°F) with no direct sunlight on the equipment. Note: For altitudes above 2950 feet, operating temperature is de-rated 1°F/550 ft.
Storing Temperature	-40° to 65°C (-40° to 149°F) with a maximum temperature gradation of 20°C per hour
Relative Humidity (operating)	10% to 80% (non-condensing) with a maximum humidity gradation of 10% per hour
Relative Humidity (storage)	5% to 95% (non-condensing) with a maximum humidity gradation of 10% per hour
Operating Altitude	-15.2 to 3048 m (-50 to 10,000 ft) Note: For altitudes above 2950 feet, the max. operating temperature is de-rated 1°F/550 ft.
Maximum Heat Dissipation	1908 BTU per hour
Supply Voltage/current	100-240VAC / 6.5A-3A

Note: This reflects the current server system when the PC hardware is provided and configured by Segami Corporation. Other hardware may be substituted but must meet or better these specifications.

Recommended Mini Server Specs

Item	Description
Manufacturer	Dell
Model	PowerEdge
Model number	R240
Chassis	Chassis with up to 4, 3.5" Hot Plug Hard Drives
Processor	Intel Xeon E3-1220
CPU clock speed	3.0GHz, 8M cache, 4C/4T, turbo (72W)
RAM Memory	8GB (1x8GB) 2400MT/s DDR4 ECC UDIMM
Operating System	Windows Server 2019, Standard Edition 64 bit
Hard drive configuration	SW RAID 1 for PERC S110
Hard drive	2 X 1TB 7.2k RPM SATA 3Gbps 3.5in Cabled Hard Drive
Power Supply	Single cabled power supply, 250W (80+ SILVER)
NIC ports	On-Board Dual port Gigabit Network Adapter
Optical drive	DVD+/-RW Drive, SATA
Server Accessories	Keyboard and Optical Mouse, USB, Black, English. 2-Post/4-Post 1U Static Rails, Short; Bezel
Hardware support services	3 Year ProSupport and NBD On-site Service
Physical and Environmental specifications	
Height	42.8 mm (1.68 in)
Width	434.0 mm (17.08 in)
Depth	495.0 mm (19.5 in)
Weight (maximum config)	9.51 kg (19.35 lb)
Operating Temperature	10° to 35°C (50° to 95°F)
Storing Temperature	-40° to 65°C (-40° to 149°F)
Relative Humidity (operating)	5% to 95% RH with 33°C (91°F) (non-condensing) maximum dew point
Relative Humidity (storage)	10% to 80% Relative Humidity with 29°C (84.2°F) (non-condensing) maximum dew point
Operating Altitude	3048 m (10,000 ft).

Note: This reflects the current server system when the PC hardware is provided and configured by Segami Corporation. Other hardware may be substituted but must meet or better these specifications.

Supported graphic monitor

Monitor size	Aspect-Ratio	Orientation	Qualified	Resolution
20"	4:3	Landscape	Yes	1600X1200
20"	3:4	Portrait	Yes	1200x1600
24"	16:10	Landscape	Yes	1920X1200
*24"	16:9	Landscape	Yes	1920X1080 *OasisNM-ACQ*
30"	16:10	Landscape	Yes	2560X1600
3MP	4:3	Landscape	Yes	2048X1536
3MP	3:4	Portrait	Yes	1536X2048

*Supported but 16:10 is preferred for Oasis.

Notes:

- Oasis does not support Monochrome Monitors.
- Monitors of various sizes cannot be mixed.
- It is possible to display the Oasis patient browser on a third monitor with a different resolution. This "patient browser" monitor should be connected to another Graphic Card. It should be the 1st declared/configured monitor.
- Newer graphics cards tend to use Display Port (DP) connectors rather than DVI connectors; please insure that the monitor and video card connectors are the same.

Supported graphic cards

Please note that the following validated configurations relate to the operation of the Oasis application only, not to other applications that may run in conjunction with Oasis such as PACS client software.

Oasis software requires a graphics card with OpenGL support and sufficient memory to hold the datasets for display.

Current Graphics Cards			
Manufacturer	Model	Memory	Certification
NVIDIA	Quadro 600	1 GB	Validated
NVIDIA	Quadro 2000D	1 GB	Validated
NVIDIA	Quadro P600	2 GB	Validated
NVIDIA	Quadro K600	2 GB	Validated
NVIDIA	Quadro K620	2 GB	Field tested
NVIDIA	Quadro 4000	2 GB	Validated
NVIDIA	Quadro K2000D	2 GB	Validated
NVIDIA	Quadro K4000	3 GB	Field tested
NVIDIA	Quadro K2200	4 GB	Validated*
NVIDIA	Quadro K1200	4 GB	Validated
NVIDIA	Quadro M2000	4 GB	Validated
NVIDIA	Quadro P2000	5 GB	Validated *
NVIDIA	Quadro P2200	5 GB	Validated *
NVIDIA	GTX TITAN Black	6 GB	Field tested
Barco	MXRT 5450	2 GB	Validated *
Barco	MXRT 2600	2 GB	Validated *
Barco	MXRT 2700	2 GB	Validated *
Barco	MXRT 7400	2 GB	Validated *
Barco	MXRT 5500	2 GB	Validated *
Barco	MXRT 4700	4 GB	Validated *
Barco	MXRT 7500	4 GB	Validated *
Barco	MXRT 5600	4 GB	Validated *
Barco	MXRT 7600	8 GB	Validated *
Barco	MXRT 6700	8 GB	Validated *
Barco	MXRT 8700	16 GB	Validated *
AMD	FirePro V4900	1 GB	Field tested
AMD	FirePro V5900	2 GB	Field tested
AMD	FirePro V7900	2 GB	Field tested
AMD	FirePro W5000	2 GB	Field tested
Integrated Video Cards			
Intel	HD4000	Not supported for clinical operation (demo systems only)	

NOTES:

- For Oasis running on PACs clients system, the verification must be done in the PACs client itself as the graphic memory usage done by the PACs client is an important factor of limitations if any. **Please check with the PACs manufacture regarding what OS is supported with which Integrated Oasis Client version.**
- For systems using three monitors (two graphics cards) both graphics cards **MUST** be from the same manufacturer i.e. Barco, AMD, or nVidia. They may be different models from the same manufacturer.
- Graphics cards were qualified with the latest released drivers available at that time.
- Always verify that the latest released graphics card driver is installed. When in doubt contact Support.
- Native 64 bit is required to support simultaneous viewing of multiple high resolution PET/CT studies.
- Use of Mirrored drivers (e.g. Dameware) is not recommended.
- Segami recommends using the latest drivers when installing video cards. Barco drivers must be validated by suppliers' prior to installing/updating. *

(*) Windows 10 qualified video cards/drivers

Manufacturer	Model	Driver
NVIDIA	GeForce 1070	Driver: 24.21.13.9764 (R397.64)
NVIDIA	Quadro P400	Driver: 25.21.14.1917 (R419.17)
NVIDIA	Quadro K620	Driver: 26.21.14.3170 (R431.70)
NVIDIA	Quadro P620	Driver: 26.21.14.4250 (R442.50)
NVIDIA	Quadro 4000	Driver: 10.18.13.5362 (R353.62)
NVIDIA	Quadro M2000	Driver: 21.21.13.7563 (R375.63)
NVIDIA	Quadro K1200	Driver: 21.21.13.7563 (R375.63)
NVIDIA	Quadro P2000	Driver: (R391.33)
NVIDIA	Quadro P2200	Driver: 26.21.14.4205 (R442.05)
NVIDIA	Quadro K2200	Driver: 23.21.13.9174 (R391.74)
NVIDIA	Quadro K4100	Driver: 24.21.14.1163 (R411.63)
NVIDIA	Quadro M4000	Driver: 27.21.14.5239 (R452.39)
NVIDIA	Quadro M5000	Driver: 27.21.14.5239 (452.39)
Barco	MXRT 5500	Driver: 8.982.9.6
Barco	MXRT 2600	Driver: 10.143.2.0
Barco	MXRT 2700	Driver: 10.184.1.0
Barco	MXRT 4700	Driver: 10.184.1.0
Barco	MXRT 5600	Driver: 10.143.3.0
Barco	MXRT 7400	Driver: 10.143.3.0
Barco	MXRT 7600	Driver: 10.143.3.0
Barco	MXRT 6700	Driver: 10.184.1.0
Barco	MXRT 8700	Driver: 10.184.1.0

Supported Oasis Client operating systems

OS	Qualified	Comments
Windows 7 32-64 bit	Yes	Please check with the PACs manufacture regarding what OS is supported with which Integrated Oasis Client version.
Windows 8.1 64 bit	Yes	Please check with the PACs manufacture regarding what OS is supported with which Integrated Oasis Client version.
*Windows 10 64 bit	*Yes	Please check with the PACs manufacture regarding what OS is supported with which Integrated Oasis Client version. * Windows 10 must be verified for each video card and video card driver.

Supported Oasis Server operating systems

OS	Qualified	Comments
Windows 7 64 bit	Yes	For server/client systems
Window 10 64 Bit	Yes	For server/client systems
Windows Server 2008 R2, Standard Edition 64 bit	Yes	Not recommended for new installs
Windows Server 2012 R2, Standard Edition 64 bit	Yes	Not recommended for new installs
Windows Server 2016, Standard Edition 64 bit	Yes	
Windows Server 2019, Standard Edition 64 bit	Yes	

Oasis Client workstation requirements Minimum/ Recommended

Component	Bare Minimum	Recommended
OS	Windows 7 Professional	Windows 10 Professional 64 bit
CPU (*)	Intel or AMD Duo (*)	Intel XEON W-2123 3.6GHz, 3.9GHz
Graphic card	2 GB, OpenGL 2.1	4.0GB NVIDIA® Quadro® K2200
Memory	4GB	16GB
Disk	160GB	1TB
Chassis	475 Watt	525 Watt or higher

(*) CPU – Minimum and recommended CPU are indicated. Less powerful configurations may work but there could be performance degradation.

Oasis Minimum recommended client laptop

Item	Description
Processor	Intel Multi-core CPU i7
RAM memory	8GB
Hard drive	500GB
Video card	1GB (nVidia or ATI) *integrated graphics cards not qualified*
Operating System	Windows 7 64 bit
Screen Resolution	1600 X 900 or higher