# Technical bulletin

OP300 Pre-Installation **Document** 

Please complete and review this document in its entirety and return it to your Sales Representative at least one week prior to the install date. Please also keep a copy for yourself.

#### Contents:

- 1. Customer Contact Information
- 2. Office Network
- 3. Viewing Workstation System Requirements
- 4. Capture Workstation Additional System Requirements
- 5. Cliniview Database and SQL Server System Requirements
- 6. Storage Specifications
- 7. Invivo 3D Viewing Workstation System Requirements
- 8. Pre-Install Specifications and Dimensions

# 1. Customer Contact Information

Dealer		
Salesperson		
Salesperson E-mail		
Salesperson Phone		
Office Name		
Office Address		
Address 2		
Address 3		
Contact Name		
Contact Phone		
Contact E-mail		
IT Contact Name		
IT Contact Phone		
IT Contact E-mail		
Targeted Installation Date		
Targeted Application Tra	aining Date	
Names of Intended Trainees		
Comments		



# 2. Office Network

## **Software**

Network			☐ Domain ☐ Workgroup	
Server Operating System				
Practice Manager Software/Version	nent			
Bridging Software from PMS to CliniView (included, or do you need to use Datagrabber?)				
Current 2D Imaging Software/Version				
List SQL Database Engines (and the programs that use them)				
Office Server/Database Backup Plan		Plan		
Coffuero			Dental	
Components Included in Delivery	ок	OnDemand3D <sup>TM</sup> Dental (3D Visualization Software)		
	□ок	require	M (If full integration into a DICOM environment is needed, DICOM Option is ed. This includes printing 2D images to DICOM rs, DICOM Storage, Modality Worklist, Query/Retrieve.)	
	ОК	FMS (	Full Mouth Series option)	

#### **Hardware**

Category	□ок	Description		
Ethernet Network	□ок	Is the host computer located close enough to the OP300 to make a direct connection via the default 19.5' (6.0 m) Category 6 (1 GB/s) Ethernet cable? (The Ethernet cable connects at the lower right side of the OP300 column, 55 mm or 21/4" above the floor.)		
	□ок	If not, does the office have Category 6 (1 GB/s) Ethernet cabling and switches to handle communications between the OP300 unit and its host computer?		
	Ок	Does the office have a minimum of Category 5e (100 MB/s) Ethernet network for communications with image reviewing workstation computers?		
Internet Connection	□ок	Can the OP300 host computer be connected to high-speed internet for future upgrades/service?		
3D Viewing Workstation Computers	□ок	Do the office image review workstation computers meet the following minimum requirements?  1. Pentium IV, 2 GHz CPU; 2 GB RAM;10 GB HDD space 2. Display with 1280 x 1024 screen resolution; 24 bit color; 3. NVIDIA® GeForce® graphics card with at least 512 MB RAM 4. Operating System: a. Windows 7 Professional/Business/Ultimate (32 and 64 bit) b. Windows 8 Professional/Business/Ultimate (32 and 64 bit)		



### List all computers in the office that will be used as client viewing stations below

Hostname of PC	Operating System	Video Card	RAM	СРИ
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

#### List all servers in the office that will host the Cliniview 10 Database and Database Engine

Hostname of Server	Operation System	Database Engines	RAM	CPU
1.				
2.				

Cliniview 10 can be installed into a previously existing SQL Server Database engine. A new instance would need to be made ahead of time for the Cliniview database. This would be done by the IT admin.

Technical assistance is available from Instrumentarium Technical Support at 800-558-6120.



#### **DICOM Services SCP**

	Identifiers		
	AE Title	Port Number	IP Address
Worklist SCP			
Storage SCP			
Storage Commitment SCP			
Print SCP			
Query / Retrieve SCP			

#### **Notices:**

- To allow for adequate time for training please schedule training for a day <u>following</u> the scheduled hardware installation/upgrade of your digital pan/ceph/CBCT system.
- All users of the digital pan/ceph/CBCT system and clinicians involved in extraoral radiography must be present for the training.
- A minimum of three hours must be set aside without patients for digital X-ray training.
- If further software training is required, contact your local dealer or sales person to schedule a time.
- Neither Instrumentarium Dental Inc., nor its authorized dealer/installer, will install software onto a network.
- Instrumentarium Dental Inc and/or its authorized dealer/installer are responsible for installation of only Instrumentarium Dental Inc. provided hardware and the workstation supplied with your system.
- Making Cliniview operational over your network is the responsibility of an IT admin (network
  administrator) who is knowledgeable and certified in configuring Microsoft operating systems and
  networks, and who is familiar with your network. Your IT admin is required to be on site the day of
  install with access to the domain admin account and local admin account if on a domain, and the
  local admin if on a workgroup.
- Mac OS is not supported.
- Apple Boot Camp is supported for viewing stations (not the capture computer) only if it is supported by an IT admin versed in both Windows and Mac OS.
- VPN, WANs, Citrix, Terminal Services, etc. are not supported at this time. If multiple locations and multiple databases are needed, then a PACS (Picture Archiving and Communication) server would need to be employed.
- The software database must be backed up regularly with an appropriate backup system. It is highly
  recommended that you use a suitable system where the backup media can easily be removed for
  off-site storage.

Signatures	<u>es:</u>	
Sales		
End User		
Date		



# 3. Viewing Workstation System Requirements (Use this section for IT Administrators)

#### Operating System (OS):

Windows Vista Business/Ultimate/Enterprise SP2 (32 or 64-bit)

Windows 7 Professional/Ultimate/Enterprise (32 or 64-bit)

Windows 8 Professional/Ultimate/Enterprise (32 or 64-bit)

Windows Server 2003 SP2 (32-bit)

\*Windows Server 2008 SP2 (32 or 64-bit)

\*Windows Server 2008 R2 (32 or 64-bit)

\*Windows Server 2011/2012 (32 or 64 bit)

\*Requires installation of Windows Desktop Experience for client installation on server

(Desktop Experience is not required if only installing the database)

Note: Windows Server 2008 R2 and SP2 are not the same. Windows Server 2008 R2 is a full release of

Windows Server. SP2 is a service pack for Windows 2008 Server

Note: The Database, SQL Server, Capture Station and Reco Server can all be on the same computer or

the workload split up to different workstations/servers. The ScanoraData folder (database)

however, has to be local on the same pc as the database engine. Please call Tech Support for

assistance with this option.

#### Hardware:

Processor: 2 GHz Pentium 4 or better (2GHz dual core recommended)

Memory (RAM): At least 3 GB (32-bIT OS) or 4 GB (64-bIT OS)

Virtual Memory: 1.5 x Physical

Hard Disk (HDD): 8 GB free space needed CD-ROM drive for Software Installation: Yes

Keyboard & Mouse: Yes

Network Card: 100/1000 Mb/s Ethernet

Monitor: 1024 x 768 resolution, 24-bit color, 17-inch or larger monitor recommended for diagnostic imaging

Graphics Card: NVIDIA® Supported Display Adaptor with at least 512 MB of RAM



# 4. Capture Workstation Additional System Requirements:

### (Use this section for 3D units only)

Windows 7 Professional/Ultimate/Enterprise (32 or 64-bit)

Windows 8 Professional/Ultimate/Enterprise (32 or 64-bit) (not currenlty supported for capture)

Processor: 2 GHz Pentium 4 or better (2GHz dual core recommended)

Network Card: 100/1000 Mb/s Ethernet (\*Two NIC's in the PC are required. One would connect to the OP300 and the other would be for the network)

Memory (RAM): At least 4 GB (32-bit OS); 6 GB (64-bit OS) recommended

Virtual Memory: 1.5 x Physical

Keyboard & Mouse: Yes

CD-ROM drive for Software Installation: Yes

Monitor: 1024 x 768 resolution, 24-bit color, 17-inch or larger monitor recommended for diagnostic imaging

NVIDIA<sup>®</sup> Supported Display Adaptors (NVIDIA<sup>®</sup> only; **not ATI)** 

NVIDIA® GeForce GTX 460 (1GB memory), NVIDIA<sup>®</sup> Quadro FX 3800 (1GB memory)

NVIDIA® Quadro FX 4000 (2GB memory)

# (Use this section for 2D only units)

Windows 7 Professional/Ultimate/Enterprise (32 or 64-bit)

Windows 8 Professional/Ultimate/Enterprise (32 or 64-bit)

Processor: 2 GHz Pentium 4 or better (2GHz dual core recommended)

Network Card: 100/1000 Mb/s Ethernet (\*Two NIC's in the PC would be preferred. One would connect

to the OP300 and the other would be for the network)

Memory (RAM): At least 4 GB (32-bit OS); 8 GB (64-bit OS) recommended

Virtual Memory: 1.5 x Physical

Keyboard & Mouse: Yes

CD-ROM drive for Software Installation: Yes

Monitor: 1024 x 768 resolution, 24-bit color, 17-inch or larger monitor recommended for diagnostic imaging

NVIDIA® Supported Display Adaptors (NVIDIA® only, not ATI) with at least 1 GB of RAM



## 5. CliniView Database and SOL Server System Requirements

#### **Operating System (OS):**

Windows 7 Professional/Ultimate/Enterprise (32 or 64-bit)

Windows 8 Professional/Ultimate/Enterprise (32 or 64-bit)

Windows Server 2003 SP2 (32-bit)

\*Windows Server 2008 SP2 (32 or 64-bit)

\*Windows Server 2008 R2 (32 or 64-bit)

\*Windows Server 2011/2012 (32 or 64 bit)

\*Requires installation of Windows Desktop Experience for client installation on server

(Desktop Experience is not required if only installing the database)

#### Hardware:

Processor: 2 GHz Pentium 4 or better (2GHz dual core recommended)

Memory (RAM): At least 3 GB (32-bit OS); 8 GB (64-bit OS) recommended

1 Gigabit Ethernet connection from OP300 to the Capture PC.

#### **Supported SQL Server Versions:**

SQL Server 2005 SP2 (32-bit x86 edition) Express/Standard/Workgroup/Enterprise

SQL Server 2008 with SP1\* (32-bit x86 edition) Express/Standard/Workgroup

\*requires SP1 installation after SQL Server installation (if installing the client)

# 6. Storage Specifications

#### **Typical file sizes:**

Panoramic: About 2-4 MB (PNG 16 bits)

Intraoral Snapshot: 3-5 MB (PNG 16 bits)

Cephalometric: 3-5 MB (PNG 16 bits)

CBCT - 3D: 60-350 MB

**Note:** We include a 500 GB drive in the capture computer. Eventually, additional storage may be needed.

NAS (Network Attached Storage) and SAN (Storage Attached Network) are not currently supported. We do support direct attached storage if a local drive letter can be assigned, such as direct SCSI and external SATA (eSATA).



# 7. Invivo Viewing Stations Additional Requirements (Used on 3D units only)

#### Hardware:

Processor: 2 GHz Pentium 4 or better (Intel Core i7 900 or comparable recommended)

Memory (RAM): At least 3 GB (32-bit OS); 8 GB (64-bit OS) recommended

## **Graphics Cards / GPU:**

#### NVIDIA® GeForce GT 9800 - 580

Recommendations:

GTX-580 (Highest Performance)

GTX-260 (Affordable, with Performance)

Low-Profile Option\*: 9800GT, GT-430, GTS-450

#### For Viewing Bone Density on Largest Volume Sizes:

Recommendations:

NVIDIA® GeForce GTX 460 (1GB or greater)

Low-Profile Options\*: NVIDIA® Geforce 9800GT, GT-430, GTS-450

**Note:** The low profile options (NVIDIA<sup>®</sup> 9800GT, GT-430, GTS-450) are typically not available at normal retail stores (Best Buy, Frys, etc.). The low profile options are still available, but must be ordered on-line.

#### **Notebook Recommendations:**

Dell Alienware M series 11",15",17" (NVIDIA® GeForce GTX 765M)

Dell Studio XPS series 15",17" (NVIDIA® GeForce GT435 or GT445)

HP Envy series 14",17" (2GB NVIDIA® GeForce GTX 645)

HP Pavilion DV6/DV7 15",17" (NVIDIA<sup>®</sup> GeForce GT 740M or 750M)

Toshiba Qosmio X505-Q892 18.4" (Intel Core i5-460M 2.53 Ghz (2.80 GHz Turbo Boost; NVIDIA® GeForce GTX 460M with 1.5GB GDDR5)

Toshiba Qosmio X505-Q898 18.4" (Intel® Core™ i7-740QM processor 1.73 Ghz, 2.93 GHz Turbo Boost, NVIDIA® GeForce GTX 460M 1.5GB GDDR5)

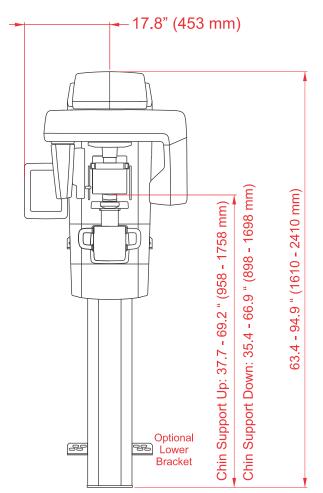


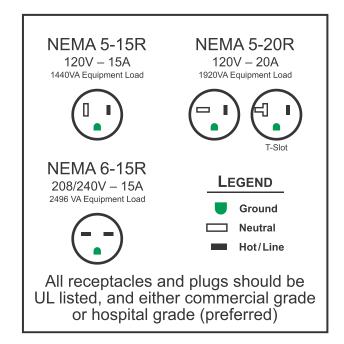
# 8. Pre-Install Specifications and Dimensions (Use this section for contractors)

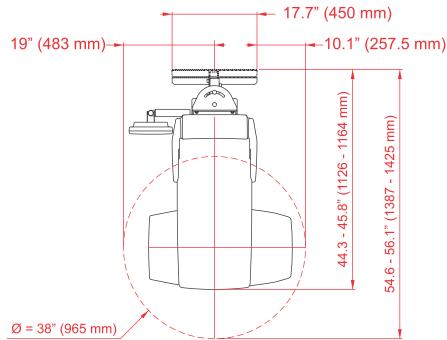
Category	□ок	Description	
Storage / Shipping	□ок	Temperature 32 - 122°F (0 - 50°C); Humidity 0 - 85 RH% Pressure 14.8 - 31.9" Hg (500 - 1080 hPa)	
Operation	□ок	Temperature 50 - 86°F (10 - 30°C); Humidity 0 - 85 RH% Pressure 20.7 - 31.3" Hg (500 - 1080 hPa)	
Radiation Shielding	□ок	Local regulatory requirements must be met. For more info, contact your local regulatory office. (Maximum tube head potential: 85 kV)	
Electrical	□ок	100VAC, 50/60Hz,15A (90-110VAC); 120 VAC, 50/60Hz,15A (105-132VAC); 230VAC, 50/60Hz, 10A (207-264VAC)  Dedicated power supply; maximum 0.2Ω line impedance.  Separate outlets for OP300 and workstation PC.  The supplied power cord is 118" (3 m) in length, and connects at the rear lower left of the column about 1" (25 mm) above the floor. A cord with a NEMA 6-15P (208/240VAC) plug, and a second cord with a NEMA 5-20P (125VAC max.) plug are supplied.  The remote exposure button cable is 32.8' (10 m) in length, and connects at	
Installation Space Panoramic/3D	□ок	the rear lower right of the column about 1" (25 mm) above the floor.  Minimum installation space (W x L): 38" x 55.3" (965 x 1405 mm)  Recommended working space (W x L): 78.75" x 59" (2000 x 1500 mm)	
Installation Space Pan/Ceph/3D	□ок	Minimum installation space (W x L): 78.9" x 55.3" (2005 x 1405 mm) Recommended working space (W x L): 118" x 59" (3000 x 1500 mm)	
Ceiling Height	□ок	Unit default (maximum) height: 94.9" (2410 mm) Unit minimum height: 83.1" (2110 mm)	
Move-in Doorways	□ок	Minimum doorway width: 34" (864 mm)	
Move-in Steps	YES	Are there steps impeding smooth move-in to the office?	
Unit Weight	□ок	OP300 Pan - 463 lb. (210 kg); OP300 Pan/Ceph - 540 lb. (245 kg) OP300 Pan/3D - 467 lb.(212 kg); OP300 Pan/Ceph/3D - 544 lb. (247 kg)	
Mounting Requirements	□ ок	Make sure that the floor where the unit is to be installed can support the stated weight. Fix the unit with floor bolts appropriate to the surface the unit is mounted on. (Hardware is NOT supplied with the unit.) The bolts and the floor material must withstand pull-out strengths of at least force of 1125 lb. (5000 N). The unit must be permanently attached to the wall and the floor. If floor attachment is not possible, use the additional lower wall support (ordered separately). The wall material should be suitable for fixing the unit. If the wall is made of insufficient materials, you may have to use a reinforcing plate on the rear side of the wall to hold the fixing hardware. The fixing hardware used to permanently attach the unit to the wall must be the correct type for the wall and wall material. The fixing hardware and wall must withstand pull-out strengths of at least force of 1,125 lb. (5000 N).  The authorized dealer/installer is responsible for the fixing hardware.	
Comments:			



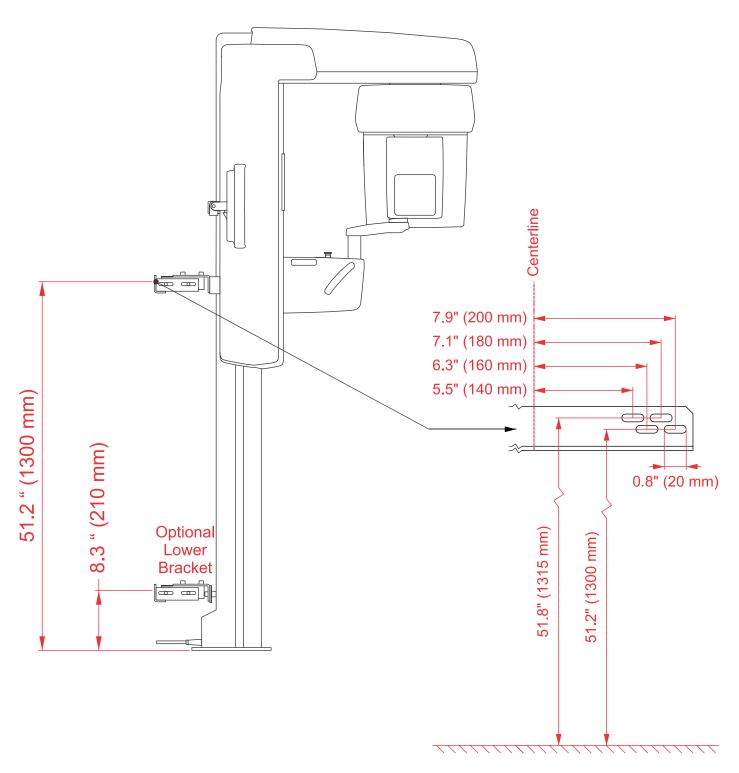
# Orthopantomograph® OP300 Pan & Pan/3D Pre-Install Specifications and Dimensions





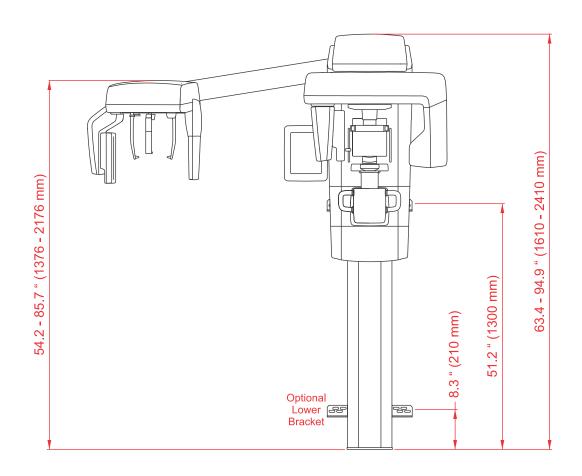


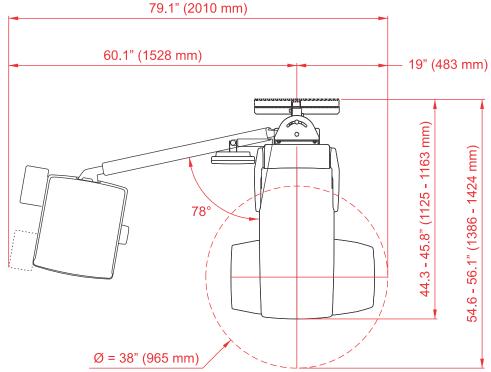
# Orthopantomograph® OP300 Pan & Pan/3D Orthopantomograph® OP300 Pan/Ceph & Pan/Ceph/3D Pre-Install Specifications and Dimensions





# Orthopantomograph® OP300 Pan/Ceph & Pan/Ceph/3D Pre-Install Specifications and Dimensions







# Orthopantomograph® OP300 Pan & Pan/3D Orthopantomograph® OP300 Pan/Ceph & Pan/Ceph/3D Pre-Install Specifications and Dimensions

