



IntelleChartPRO EHR

Technical Requirements

Equipment Recommendations

Business Confidential

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IntelleChartPRO Technical Requirements

Adhering to the following specifications will enable your practice to best utilize our web-based applications.

General Requirements

Minimum Requirements

The following is to be used as a guideline for all computers in the practice using IntelleChartPRO. Specific recommendations will vary depending on clinic role. Be aware that Internet speed has the most impact on IntelleChartPRO running efficiently. Any operating systems or browsers not listed in this document are **not supported**. Running IntelleChartPRO in remote desktop, terminal services, Citrix, or any virtualized environment is not supported. IntelleChartPRO is a browser based application designed to run directly on a Windows based client machine.

- **Minimum RAM:** 8 GB
- **Minimum *available* hard drive space:** 128 GB
- **Devices:** Windows based PC, Laptop or Tablet PC; iPad Pro (**not recommended** as a primary device) is supported with latest version.
- **Recommended Processor:** Core i5 Gen 3 and above, i7 and i9
- **Supported OS:** Windows 10 or newer with 64 Bit operating system **only**
- **Software Updates:** Latest Service Packs/Updates for the Windows Operating System
- **Microsoft .NET Framework:** version 4.8 and above with the latest updates for running IntelleFile, IntelleSign and IntelleDraw
- **Adobe Reader:** DC version
- **Supported Browser:** Google Chrome (latest stable version)
- **Antivirus Software** on all computers with access to IntelleChartPRO

Administrative Users (Check-in/Check-out/Billing)

- **Desktop or Laptop** meeting the *General Hardware Requirements* stated previously
- **Monitor:** Minimum 17" with highest pixel resolution available, preferably 1920x1080. A second monitor is **highly recommended** for viewing of PM and EHR screens, 19" or larger monitor with 1920x1080 pixel resolution. Smaller resolutions may result in scrolling.
- **Printer** located at the Check Out area accessible from any computer on the network for printing prescriptions and patient records
- The following **Optional Equipment** can be used to improve clinic workflow

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- **Web Cam** for patient photos
Examples: Microsoft Life-Cam, creative Live-Cam, Logitech Webcam



- **Document Scanner** for scanning patient documents: Configured to save .jpeg, .tiff, or .pdf files on a local folder or network share. (Example: Fujitsu ScanSnap iX1600 or other multiple page scanners)



- **Card Scanner** for scanning patient documents: Configured to save .jpeg, .tiff, or .pdf files on a local folder or network share. (Example: Ambir DS687 Duplex A6 ID Card Scanner or another similar double-sided card scanner)



- Topaz Electronic Signature for signing consent forms
(Models: T-LBK460-HSB-R, T-LBK462-HSB-R **only**)



Users

Technicians/Nurses/Other Administrative Staff (Charting)

- **Desktop or Laptop** meeting the *General Hardware Requirements* stated previously
- **Touch Screen Monitors** are not required for signing consents if using attached Topaz Signature Pad.
- **Monitor:** Minimum 17" with highest pixel resolution available, preferable 1920x1080; Recommend 19" or larger with 1920x1080 pixel resolution. Smaller resolutions may result in scrolling.

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Physicians (Drawing and Charting)

- **Tablet PC or Touch Screen Laptop** meeting the *General Hardware Requirements* stated previously. Business (not Consumer) computer models are recommended.
- Touch Screens are necessary for Drawing and Signing of Consent forms.
- Wireless mouse with scrolling capability and auto shut off feature.
- **An external monitor**, approximately 22" to 24" in size, is **strongly recommended** in exam rooms for patient education and viewing of images.



More specific comments may be made per practice and will be outlined after receiving a Site Assessment from the practice for each location.

Network Connectivity

Internet Access

<i># of Users Logged in at the Same Time</i>	<i>Minimum Bandwidth Down/Up *</i>	<i>Better Efficiency Down/Up*</i>
1-10	10/4 MBs	25/10 MBs
10-30	25/10 MBs	50/20 MBs
30-60	50/20 MBs	75/25 MBs

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60+	75/25 MBs	150/25 MBs
100+	Fiber Connection	Fiber Connection

*Minimum Bandwidth per Location for just Nextech Software

- Bandwidth needs are increased if other office applications are utilizing network resources (Internet based Practice Manager, Telephone services, Internet Radio, Internet Billing, your practice's cellphone connected to your WiFi, etc.).
- Redundant internet connections from different ISPs are strongly recommended to reduce time caused by Internet providers. Premium routers with automatic fail-over to backup connections are a must for minimal disruption, e.g., BGP.
- Wired connections will provide a more reliable connection and are strongly recommended where applicable.

Wireless (Wi-Fi)

- Comprehensive wireless LAN access, tested for signal strength in all areas of the clinic
 - Keep in mind that Wireless will not perform as well as wired connections and that all devices connected to Wireless will consume bandwidth.
- Consult with your local IT/Networking vendor to properly address the installation/placement of access points, security, additional LAN and power outlets and additional new equipment
- Wireless networks using 802.11B, G, or N can be disrupted by radio frequencies in the public domain, including microwaves and 2.4 GHz cordless phones. The presence of these types of devices should be carefully considered when configuring and testing a wireless network. Disabling the 2.4 GHz wireless networks will improve wireless connections.
- Wireless access is **not** recommended for Diagnostic equipment.

Telehealth

Telehealth usage has additional requirements above and beyond the normal networking requirements:

- Mac/PC/Chromebook with camera, microphone, and speakers or a modern phone (iOS/Android) or an iPad.
- For a good experience in office, especially with multiple providers, you'll need at least 100/100 MBPS for your Internet connection.
- Google Chrome, Mozilla Firefox, or Safari (latest release versions)
- You'll need to have the latest operating systems such as Windows 10 or MacOS Catalina to obtain the latest versions of the browsers listed above
- JavaScript must be enabled (this is enabled by default in most browsers)
- Make sure TCP ports 80 and 443 are open (sometimes firewalls will block these ports, ask your IT team if you can't connect with someone if this is causing it)

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- For iOS and Android:
 - Use Safari on your iOS devices (latest version of iOS)
 - Google Chrome on your Android device
- Compatibility:
 - We are not compatible with Amazon Kindle and other e-readers.

Special Installation Requirements

Chrome with Windows Remix ClickOnce Launcher Installation Instructions

The IntelDraw, IntelFile and IntelSign functions can be used on the Chrome browser by installing the Windows Remix ClickOnce Launcher extension. To do so, perform the following steps:

- Open the Chrome browser
 - Go to Settings -> Extensions -> Open Chrome Web Store
 - Search for “ClickOnce” and select “Windows Remix ClickOnce Launcher”
 - Click on “Add to Chrome”
 - Click on “Add Extension,” then double-click “winmixClickOnceHelper-v1.4.0.0.exe” from the downloads to Run the Installer
- Upon completion, an “Installed Successfully” message will appear. Click “OK” to finish the install.

Practice Letterhead Specifications

- Letterhead must be in the JPEG format
- Logo has to be 1024 pixels wide and up to 300 pixels in depth
- Footer and Header options are available
- A graphic artist is recommended to create and finalize your letterhead

Fax Support

Support for outbound faxing of referral letters from the IntelleChartPRO EHR is done using an internet based faxing service. The first 500 pages per month are free, .05 per page for all subsequent pages. Inbound faxing is not currently supported.

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Diagnostic Imaging Equipment that produces images and/or reports

- Connected to the network with Anti-Virus software installed
- DICOM is unsupported
- Configured to save image files in JPEG, TIFF or PDF format into a local folder or network share for uploading to patient charts. Video files cannot be uploaded to the patient file.
- Meet *General* requirements stated previously to run the IntelleChartPRO EHR locally.
- **CAUTION:** any updates to another vendor's equipment should be first cleared with the vendor if the device is still under contract/warranty.
- Devices running Windows XP and older are no longer HIPPA compliant and must export reports/images to a shared folder then uploaded to the chart from a PC running Windows 7 or newer.
- Some equipment that may not be networkable can still upload images with the addition of image/printer capture equipment and software (some Visual Fields, IOL Masters, etc.)
- Nextech recommends that all diagnostic devices be hardwired to reduce instances of interference with report upload. See Wireless section above for more information.
- All equipment, software, upgrades, and connections must be in place before integration to insure completion of office setup.

IntelleFile Specifications

- All Devices running operating systems older than Windows 7 will need to export reports and images to a network shared folder, then upload to patient chart from a HIPPA compliant PC.
- IntellechartPRO does not currently support DICOM.
- IntellechartPRO currently only has the ability to store static images from PDF, JPG, JPEG, PNG, and Tiff files. Video cannot be uploaded to the patient file.
- IntellechartPRO recommends that all diagnostic devices be hard wired for less instance of interference in report upload. Wireless can interfere with upload.
- All equipment, software, upgrades, and connections must be in place before integration to ensure completion of office set up.

Third-Party Viewing Software

For third-party viewing software, the user needs to save image files in JPEG, TIFF or PDF format into a local folder or network share for uploading to patient charts. In these cases, devices that are currently connected to the third-party software will not be reconfigured. This applies to the following viewers:

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- Zeiss Forum
- Sonomed Axis
- OIS Digital Review
- Optos Advance
- Heidelberg Viewer
- Nidek Viewer
- Merge
- SRS

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Appendix A - Device Compatibility

THIS LIST IS SUBJECT TO REVISIONS OR UPDATES.

Heidelberg

Model	Integrate	Requirements
HEP	Yes	Networked, Export to Share If Win XP
HRT	Yes	Networked, Export to Share If Win XP or Older
Spectralis OCT/FA/ICG	Yes	Networked, Export to Share If Win XP

Kowa

Model	Integrate	Requirements
Fundus Cameras	Yes	Networked, Export to Share If Win XP
Non-Myd Cameras	Yes	Networked, Export to Share If Win XP
VX Retina Cameras	Yes	Networked, Export to Share If Win XP

Marco (Nidek)

Model	Integrate	Requirements
AFC-330 Camera	Yes	Networked Export to Share
AR(K) Refractors	Yes	Marco RS232 cable attached to a dedicated PC
ARK-1 (S or A)	Yes	Marco RS232 cable attached to a dedicated PC
Epic RT2100	Yes	Marco RS232 cable attached to a dedicated PC
Epic RT5100	Yes	Marco RS232 cable attached to a dedicated PC
Handy Ref	Yes	Based connected to a dedicated PC
LM Auto Lens	Yes	Marco RS232 cable attached to a dedicated PC
MS ARK	Yes	Marco RS232 cable attached to a dedicated PC
NT 510	No	
OPD II	Yes	Networked for export of corneal map to network shared folder then uploaded from PC. For refraction data, need cables from Marco (RS232 to USB and "pigTail") connected to a dedicated attached PC with Internet access

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OPD III	Yes	Networked for export of corneal map to network shared folder then uploaded from PC. For refraction data, need cables from Marco (RS232 to USB and "pigTail") connected to a dedicated attached PC with Internet access
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Nidek

Model	Integrate	Requirements
RS-3000 OCT	Yes	Networked, export to shared Folder
AFC-210/230 Camera	Yes	Attached PC needs Network Connection and Internet Access
AL-Scan	Yes	Networked, set to export to shared Folder
CEM-530 Spec Micro	Yes	Networked, set to export to shared Folder
ConfoScan4	Yes	Attached PC needs Network Connection, export to shared folder
Magellan Mapper	Yes	Networked, set to export to shared Folder
MP MicroPerimeter	Yes	Networked, set to export to shared Folder
Non-Myd Camera	Yes	Networked, set to export to shared Folder

Oculus

Model	Integrate	Requirements
Centerfield	Yes	Attached PC with Internet Access
Easyfield C	Yes	Attached PC with Internet Access
Kertograph	Yes	Attached PC with Internet Access
Pentacam	Yes	Networked with Internet Access
Twinfield	Yes	Attached PC with Internet Access

Optos

Model	Integrate	Requirements
California	Yes	Networked, review PC with Internet Access
Daytona	Yes	Networked, review PC with Internet Access
Monaco		Networked, review PC with Internet Access

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Optovue

Model	Integrate	Requirements
AngioVue	Yes	Networked, export to shared folder
Avanti	Yes	Networked, export to shared folder
iFusion	Yes	Networked, export to shared folder
iScan OCT	Yes	Networked, export to shared folder
OCT iVue	Yes	Networked, export to shared folder
Vivicon Camera	Yes	Networked, export to shared folder

Reichert

Model	Integrate	Requirements
AL 200,700	Yes	USB cable to dedicated PC with Internet Access
KR Auto Refract	Yes	USB cable to dedicated PC with Internet Access
LensChek	Yes	USB cable to dedicated PC with Internet Access
OptoChek	Yes	USB cable to dedicated PC with Internet Access
ORA G3	No	
Reflex B Scan	Yes	Connected to local Network, export still images to network folder
RM Auto Refract	Yes	USB cable to dedicated PC with Internet Access
Tono Pen	No	

Tomey

Model	Integrate	Requirements
Casia2 OCT	Yes	Networked, export to network shared folder
EM3000 Spec Micro	Yes	Connected to a PC with Internet Access. PC must have Data Transfer software from Tomey.
RT-7000 Refractor	Partial, Corneal Map only	Tomey Cabled to a dedicated PC with Internet Access and Tomey Software
TMS-4 Topo	Yes	Tomey Cabled to a dedicated PC with Internet Access, Tomey Software

Topcon

Model	Integrate	Requirements
Aladdin	Yes	Attached PC with Topcon software
CA-800 Topo	Yes	Networked, Export data to PC
CL 100,200,300 Lensmeters	Yes	Topcon Cable connected to dedicated PC
CT-80 Tono	No	

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CV-5000S System	Yes	1.Topcon Cable connected to dedicated PC 2. Networked and configured to export to a network folder, import from a dedicated PC
EZ200 LM	Yes	Topcon Cable connected to dedicated PC
KR800, KR8000 series Auto Refractors	Yes	1.Topcon Cable connected to dedicated PC 2. Networked and configured to export to a network folder, import from a dedicated PC
KR-1W Wavefront	Yes	Networked, Export data to PC
Maestro 3D OCT	Yes	Networked with Internet Access
RM Auto Refract	Yes	Topcon Cable connected to dedicated PC
SP-1P Spec Micro	Yes	Networked, Export data to PC
TRC Series Cameras	Yes	Networked, Export to Share If Win XP

Zeiss (Humphery)

Model	Integrate	Requirements
599 Auto Refractor	No	Not able to capture data from COM port
LM-350	No	Not able to capture data from COM port
Acuitus ARKs	No	Serial Port Turned OFF
Atlas 9000	Yes	Networked, Export to Share folder If Win XP
Atlas 995	No	
Avante OCT	Yes	Networked with Internet Access
Cameras	Yes	Networked, Export to Share folder If Win XP
Cirrus 4000	Yes	Networked, Export to Share folder If Win XP
Cirrus 5000	Yes	Networked with Internet Access
Cirrus Photo	Yes	Networked Export to Share Folder
FTD	No	Not able to produce PDF or JPEG
Clarus	Yes	Networked Export to Share Folder
GDX	Yes, Redtitan Solution	3rd Party device and attached PC
HFA 3 Series	Yes	Networked Export to Share Folder
HFA II 700 Series	Yes, Redtitan Solution	3rd Party device and attached PC
HFA II 700i Series	Yes	Networked Export to Share Folder NetPro license required for PDF creation
IOL Master 5.4	Yes	Networked Export to Share Folder, if no LAN port then Redtitan (eDocPro required for PDF creation)
IOL Master 500	Yes	Networked Export to Share Folder

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		(eDocPro required for PDF creation)
IOL Master 700	Yes	Networked Export to Share Folder
iProfiler	Yes	Networked Export to Share; Corneal Map only
Lensmeters	No	Not able capture data from COM port
Matrix	No	No Digital output
Stratus 3000	Yes	Networked Export to Share Folder
Visante	Yes	Networked Export to Share If Win XP
Visucam	Yes	Networked Export to Share Folder
Visupac	Yes	Networked Export to Share If Win XP

Misc.

Manufacturer	Model	Integrate	Requirements
Abbott/J&J	iDesign	No	Manufacturer will not allow
Abbott/J&J	Wavescan	No	Manufacturer will not allow
Accutome	A Scan Plus(USB)	Yes	Attached PC with Internet Access
Accutome	B Scan Plus(USB)	Yes	Attached PC with Internet Access
Accutome	UBM Plus(USB)	Yes	Attached PC with Internet Access
Accutome	Synergy A-Scan	No	No Digital Output, either Print/Scan or can save on USB flash drive and then upload to chart
Alcon	Verion	Yes	Attached PC with Internet Access
Allegro	Vario	Yes	Attached PC with Internet Access
B & L	Orb Scan	Yes	Networked Export to Share Folder
B & L	Zy Wave	Yes	Networked Export to Share Folder
Canon	Cameras with PC	Yes	Networked Export to Share if Win XP
CenterVue	Compass	Yes	Networked Export to Share Folder
DGH	Scan Mate 8000	Yes	Networked Export to Share if Win XP
DGH	Pachette2	No	
Diopsys	Nova VEP/ERG	Yes	Networked Export to Share if Win XP
DRS	CenterVue	Yes	Networked Export to Share Folder
DRS	Maia	Yes	Networked Export to Share Folder
Ellex	Eye Cubed	Yes	Networked Export to Share Folder
Goldman	VF	No	No Digital Output
Haag-Streit	Octopus VF	Yes	Attached PC with Internet Access
Haag-Streit	Lenstar	Yes	Attached PC with Internet Access
Hai Labs	Specular Microscope	Yes	Attached PC with Internet Access

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Humphrey	ARK or LM	No	
Ioptics	Cassini	Yes	Networked with Internet Access
Konan	Spec Microscope	Yes	Attached Laptop needs Internet Access
Konan	Cell Chek	Yes	Attached Laptop needs Internet Access
Konan/LKC	RETeval	Yes	PC with device dock networked with Internet Access
Quantel	Aviso A/B/UBM Scan	Yes	Networked Export to Share Folder
Quantel	Axis ii	Yes	Networked Export to Share Folder
Quantel	Compact Touch	Yes	Networked Export to Share Folder
Righton	K+ Refractors	No	
Sonomed	A or B Scan	Possible, age dependent	Model will be evaluated
Sonomed	Master-Vue B Scan	Yes	Networked Export to Share
Sonomed	VuPad	Yes	Networked Export to Share
TearScience	Lipi Flow	No	No Digital Output
TearScience	Lipi View	Yes	Networked Export to Share Folder
TearScience	Lipi Scan	Yes	Networked Export to Share Folder
Tracey	Itrace	Yes	Networked
Visometrics	HD Analyzer Accutarget	Yes	Attached Laptop needs Internet Access
Visx	WaveFront/Scan	No	Manufacturer will not allow
Visionix	Refraction Systems	Yes	Networked Export to Share Folder
Zeimer	Galilei G4	Yes	Attached PC with Internet Access
Various Manufacturer	Slit Lamp Cameras	Yes	Attached to Networked PC
Various Manufacturer	Lasers/Lasik	No	No Digital Output
Various Manufacturer	Accuity Devices	No	No Digital Output

Devices not listed will be evaluated on a case-by-case basis.

Exporting to a shared folder also requires a PC for upload of images/reports to a patient's chart.