

# Machine Integration List

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# Integration Information

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## RS-232 Serial Cables

Most manufacturers will provide you with the compatible RS-232 Serial cable required for attaching your machine to your computer. In the case the manufacturer does not provide you with such cable, you will need to purchase this cable online before integrating your machine. Most autorefractor, autophoropter, autolensometer, and autotonometer machines require an RS-232 Serial cable with a Null Modem Adapter. This cable can be found online here: [RS-232 Serial to USB with Null Modem Adapter](#).

## Cloud Integrations

Cloud compatible machines require mapping a network drive of the machine output folder on the local side of the computer before integration.

## Integration Requests

The list below contains all machine and software integrations Crystal Practice Management currently offers. If any machine is not listed in the list below, you may request an integration by emailing [info@crystalpm.com](mailto:info@crystalpm.com).

# Autorefractors

Company	Equipment/Software	Connection Type	Integration Type	Additional Info	Cloud Compatible?
Canon	<a href="#">RK F1</a> <a href="#">RK F2</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Essilor	<a href="#">AKR 500/750</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Essilor	<a href="#">Essibox XML</a>	LAN XML	Shared Folder		✓
Eye Logic	<a href="#">Automated Refraction System</a>		EyeLogic Software	EyeLogic software must be configured prior to the integration to output to a HuvitzData.dat file	✓
Ezer	<a href="#">ERK-9000</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Humphrey	<a href="#">499 AR</a> <a href="#">599 AR</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Huvitz	<a href="#">MRK 3100P</a> <a href="#">HRK 7000A/8000A/9000A</a>		CDR/HDR-Mate Software HRK-Mate Software		✓
Marco/Nidek	<a href="#">Any Autorefractor/Keratometer using Marco Connect</a>		Marco Connect Software	Marco Connect software must be installed and configured by Marco prior to the integration.	✓
Potec	<a href="#">PDR-7000</a> <a href="#">PRK-8000</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Reichert	<a href="#">RK- 600 Autorefractor</a> <a href="#">RK-700 Autorefractor</a>	RS-232C Serial Cable	Reichert Capture Software		✓
Retinomax	<a href="#">K-plus 3</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Righton/Nikon	<a href="#">Speedy K / Speedy K2</a>	RS-232C Serial Cable	CPM Machine Integration Utility	Serial cable requires Null Modem Adapter	✓
Shin-Nippon	<a href="#">Accuref-K 9001</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Tomey	<a href="#">RT-7000</a>		Tomey Software	Tomey software must be installed and configured by Tomey prior to the integration.	✓

<b>Topcon</b>	<a href="#">KR 8000/8800/8900</a> <a href="#">KR-1</a> <a href="#">KR-1W</a>	RS-232C Serial Cable	CPM Machine Integration Utility	Ethernet LAN Connection integration requires Crystal PM Version 4.5.2 +	✓
	<a href="#">KR 800/800s</a> <a href="#">KR-1/KR-1W</a>	RS-232C Serial Cable or Ethernet LAN Connection	CPM Machine Utility or Network Shared Folder		✓
	<a href="#">KR 7000P / 8000P</a>	RS-232C Serial Cable	Topcon Color Mapping Software	Requires registry file to import readings	✓
<b>Visionix</b>	<a href="#">L79</a> <a href="#">VX110</a> <a href="#">VX118</a> <a href="#">VX120</a> <a href="#">VX130</a>	RS-232C Serial Cable or Ethernet LAN Connection	CPM Machine Integration Utility or Network Shared Folder	LAN output has to be set up by Visionix prior to integrating	✓
<b>Zeiss</b>	<a href="#">VisuRef</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
	<a href="#">iProfiler/iScription</a>		Zeiss iScription Software	Requires iScription software to be set up by Zeiss prior to the integration	✓

# Autolensometers

Company	Equipment/Software	Connection Type	Integration Type	Additional Info	Cloud Compatible?
Essilor	<a href="#">ALM 500</a> <a href="#">ALM 700</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Essilor	<a href="#">Essibox XML</a>	LAN XML			✓
Humphrey	<a href="#">LM 350</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Huvitz	<a href="#">CLM 3000</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Marco/Nidek	<a href="#">LM-600</a> <a href="#">LM-820A</a> <a href="#">LM-970</a> <a href="#">LM-990A</a> <a href="#">LM-1000</a> <a href="#">LM-1200</a> <a href="#">LM-1800</a>		Marco Connect Software	Marco Connect software must be installed and configured by Marco prior to the integration.	✓
Reichert	<a href="#">AL-200</a> <a href="#">AL-500</a> <a href="#">AL-700</a> <a href="#">LensChek</a>		Reichert Capture Software		✓
Tomey	<a href="#">TL-3000B</a>		Tomey Software	Tomey software must be installed and configured by Tomey prior to the integration.	✓
Topcon	<a href="#">CL 100 / 200 / 300</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
	<a href="#">CL 300</a>	RS-232C Serial Cable or Ethernet LAN Connection	CPM Machine Utility or Network Shared Folder	Ethernet LAN Connection integration requires Crystal PM Version 4.5.2+	✓
Visionix	<a href="#">VX35 (LAN)</a> <a href="#">VX40 (LAN)</a> <a href="#">VX40 (SERIAL)</a> <a href="#">WaveLine VL 3100</a>	RS-232C Serial Cable or Ethernet LAN Connection	CPM Machine Integration Utility or Network Shared Folder	LAN output has to be set up by Visionix prior to integrating	✓
Zeiss	<a href="#">VisuLens</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓

# Autophoroptors

Company	Equipment/Software	Connection Type	Integration Type	Additional Info	Cloud Compatible?
Essilor	<a href="#">APH 550</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Essilor	<a href="#">Essibox XML</a>	LAN XML			✓
Eye Logic	<a href="#">Digital Refraction System</a>		EyeLogic Software	EyeLogic software must be configured prior to the integration to output to a HuvitzData.dat file	✓
Huvitz	<a href="#">CDR-7000/9000</a> <a href="#">HDR-7000/9000</a>		CDR-Mate Software or HDR-Mate Software		✓
Marco/Nidek	<a href="#">RT 5100</a>		Marco Connect Software	Marco Connect software must be installed and configured by Marco prior to the integration.	✓
	<a href="#">Bi-Directional Communication: Send To Marco</a>	XML Input File	Button Command in Crystal	Available on Crystal PM Version 4.4.45 +	✓
Reichert	<a href="#">Phoroptor VRx</a> <a href="#">Auto Phoroptor RS</a> <a href="#">Visutron 900+</a>		Reichert Capture Software		✓
	<a href="#">Bi-Directional Communication: Send To Reichert</a>	XML Input File	Button Command in Crystal	Available on Crystal PM Version 4.5.4 +	✓
Topcon	<a href="#">CV 5000 / KB 50</a> <a href="#">CV5000 XML</a>	RS-232C Serial Cable or Ethernet LAN Connection	CPM Machine Utility or Network Shared Folder	Ethernet LAN Connection integration requires Crystal PM Version 4.5.2 +	✓
Visionix	<a href="#">VX55 / VX60 (LAN)</a> <a href="#">VX55</a> <a href="#">VX60</a>	RS-232C Serial Cable or Ethernet LAN Connection	CPM Machine Integration Utility or Network Shared Folder	LAN output has to be set up by Visionix prior to integrating	✓
Zeiss	<a href="#">Clarifye</a>		Clarifye Integrator Software	Clarifye Integrator software must be install/configured by Clarifye	
Zeiss	<a href="#">Visuphor</a>		Network Shared Folder		✓

# Autotonometers (NCT)

Company	Equipment/Software	Connection Type	Integration Type	Additional Info	Cloud Compatible?
Canon	<a href="#">TX-F</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓
Essilor	<a href="#">Essibox XML</a>				✓
Marco/Nidek	<a href="#">Tonoref II</a> <a href="#">RKT-7700</a>		Marco Connect Software	Marco Connect software must be installed and configured by Marco prior to the integration.	✓
Reichert	<a href="#">AT-555</a> <a href="#">Reichert 7 Tonometer</a> <a href="#">Reichert 7CR Tonometer</a>		Reichert Capture Software		✓
Topcon	<a href="#">CT-80</a>	RS-232C Serial Cable	CPM Machine Integration Utility		✓

# External Software / Imaging Machines

Company	Equipment/Software	Integration Type	Additional Info	Cloud Compatible?
Essilor	<a href="#">M'eyeFit</a> <a href="#">VisiOffice</a>	Frame Order Page	To VisiOffice: Full Name, Phone #, Email, Address, DOB, Account ID From VisiOffice: Seg Ht, DPD, NPD, Mono PD, Dbl, A, B, ED, Frm Wrap, PantoTilt, Vertex, OC, Eye Rot, Head Pos, Head Eye Co, Stab Co	
Eye Photo Systems	<a href="#">EPS Software</a>	Button Command	Creates or updates a patient in the EPS software, and opens to the corresponding patient in the camera program.	
EyeQuip	<a href="#">Scout Keratron</a>	Button Command	EyeQuip – Capture button will send information from Crystal to Scout software EyeQuip – View button will pull in information from the Scout software	
Haag-Streit	<a href="#">EyeSuite (Octopus)</a>	Button Command	Opens the EyeSuite software to the correct patient, or creates the patient if he/she does not exist.	
Heidelberg	<a href="#">Heidelberg Spectralis</a>	Records → Import Machines	Pulls in XML Output information into Crystal	✓
iZon	iZon Software	Records → Import Machines	Imports OD/OS Sph, Cyl & Axis from the iZon Software into Records	✓
Konan	<a href="#">Konan CellChek Software</a>	Records → Import Machines	Imports CellChek Photos / Readings	✓
Kowa	<a href="#">DigiVersal</a>	Button Command	Opens the DigiVersal software to the correct patient, based on Patient ID.	
Nidek	<a href="#">Navis-EX</a>	Button Command	Opens the Navis-EX software to the correct patient, based on Patient ID, Patient Name, Sex & DOB.	
Oculus	<a href="#">Easyfield</a>	Button Command	Opens the Easyfield software to the correct patient, or creates the patient if he/she does not exist.	
Optikam	<a href="#">OptikamPad</a>	Frame Order Page	Pulls Optikam results into Frame Order Page. Available on CrystalPM versions 4.6.29+ <b>**REQUIRES OPTIKAM CLOUD SUBSCRIPTION**</b>	✓
Optomap	<a href="#">Optos Capture</a> <a href="#">Optos Review</a> <a href="#">Optos Advance (4.5.10+)</a>	Button Command	Opens the Capture/Scheduler software and creates the patient if he/she does not exist. Opens the Optos Review software to the correct patient, based on Patient ID.	Only Optos Advance (requires VPN)



<b>Optovue</b>	<a href="#">iVue ReVue</a>	Button Command	Opens the iVue/ReVue software to the correct patient, based on Patient ID, Patient Name, Sex & DOB.
<b>Quantify</b>	<a href="#">Quantify Software</a>	Records → Import Machines	Imports Right Eye / Left Eye ✓
<b>Synemed</b>	EyeScape	Button Command	Opens the EyeScape software to the correct patient, or creates the patient if he/she does not exist.
<b>Topcon</b>	<a href="#">ImageNET Lite ImageNET Capture/View</a>	Button Command	Opens the ImageNET software to the correct patient, or creates the patient if he/she does not exist.
<b>Zeiss</b>	<a href="#">Zeiss FORUM</a>	Button Command	Opens the Forum software to the correct patient, based on Patient Name, Sex, DOB, & ID.

# Non-Direct Integrations

Company	Equipment/Software	Integration Type	Additional Info
<b>Humphrey/Zeiss</b>	Humphrey Field Analyzer HFA Humphrey Matrix 715 Humphrey Matrix 800 Zeiss Atlas 9000 Zeiss Cirrus HD- OCT Zeiss Cirrus Photo Zeiss Stratus OCT Zeiss VisuCam	Direct Integration with Zeiss FORUM	You will need to contact Zeiss support to have them configure a shared folder to export files to. Export files as a .pdf format.
<b>Topcon</b>	Maestro OCT	PDF Export or CPM Printer	Crystal must be installed on the computer that has the ImageNet5 software on it to use the CPM PDF Printer.

## Importing Images:

It is not the intention of Crystal PM to replace the complex software's that often accompanies your imaging devices. The images contained in these programs are typically very large and best viewed and manipulated with the original software. If no software for viewing the images exists and you would like to add images directly in Crystal, images exported in an image file format may be integrated into Crystal in two ways:

- In the Patients File Section:
  - Choose Add File
  - Browse to the file location of the image
  - Create a Description/File Type for the image
  - Add File to Patient's File
- In the Records Section:
  - In EHR Settings → Edit Medical Record Templates, create picture boxes with the type of (Upload External App)
  - Stop Editing and Save Changes, open the records page and click on the picture box you created.
  - Set the default file location to the folder containing the images.
  - Now when you click on the picture box, it will add in the most recent file from the image folder into the picture box.