smartPerform PRO

Datasheet

Valid from Version 2022.1.3

The smartPerform Pro standard software combines in a single executable application the functions for the creation, maintenance and operation of graphical user interfaces for all presentation and collaboration environments. smartPerform Pro combines the benefits of a sustainable standard solution with a large selection of design possibilities and flexible functionalities hitherto only achievable with individual solutions. Especially the flexible functions make the difference – they simplify the operation and the professional service for solutions of this type extremely. Without programming knowledge, specialist companies and agencies create customized interfaces for individual projects or product solutions with the integrated content management mode. smartPerform Pro also allows operators and users to modify or maintain content in the simplest way.
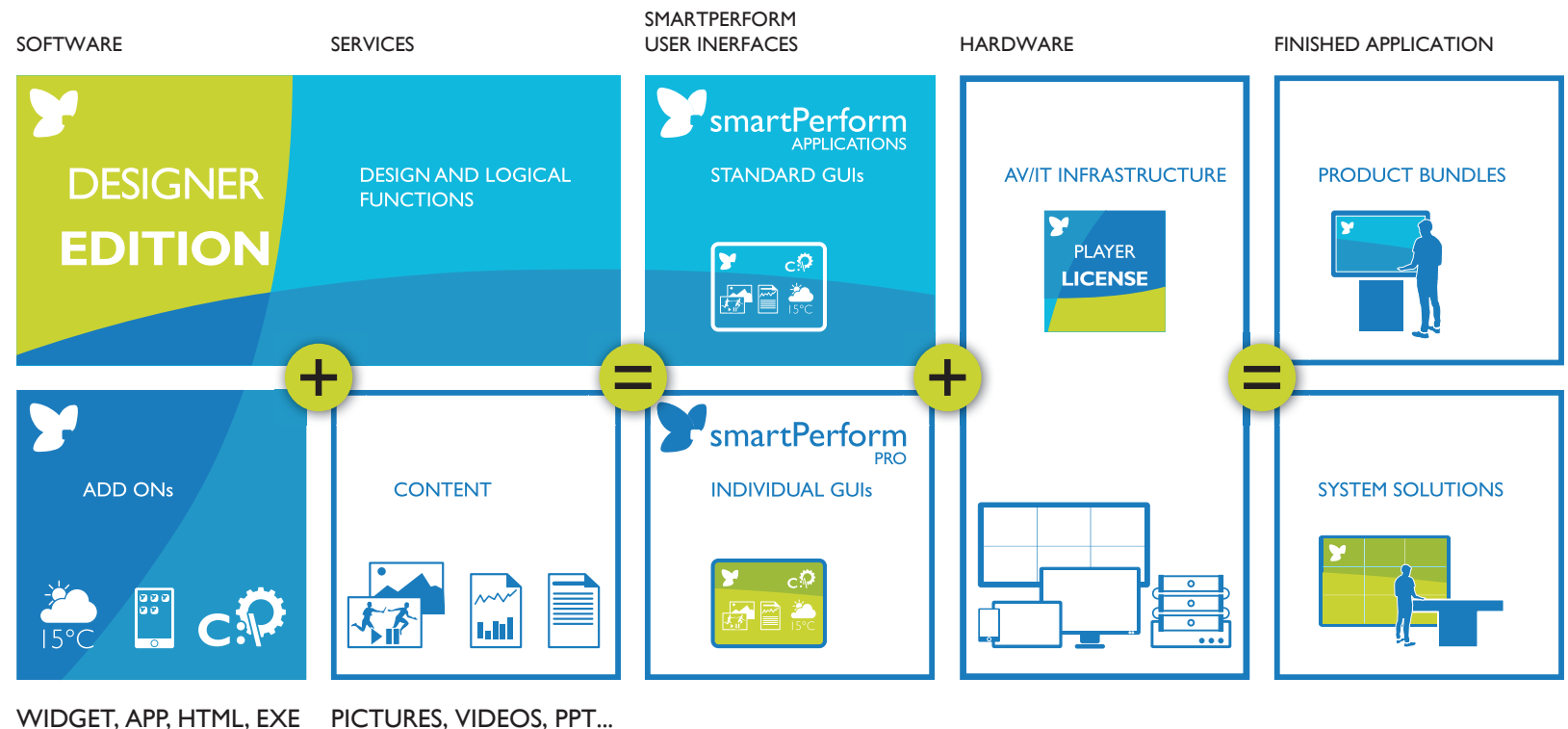
DESIGNER EDITION

PLAYER LICENSE

System Architecture
smartPerform Pro – The Focus of Your Interactive Application

Interactive screens are available as an intuitive interface for the presentation of products and services, as a platform for work and creative functions or for the operation of complex technical processes, from the tablet to the personal powerwalls. Depending on the application and requirements, our smartPerform Pro partners offer different product bundles or system solutions, such as multi-touch tables, interactive wall displays, powerwalls, steles, speaker consoles, tablet or laptop solutions. The individual components can be compiled and optimized for the particular application to match the performance requirements and budget. We would be pleased to advise you on the selection of suitable components for smartPerform Pro.

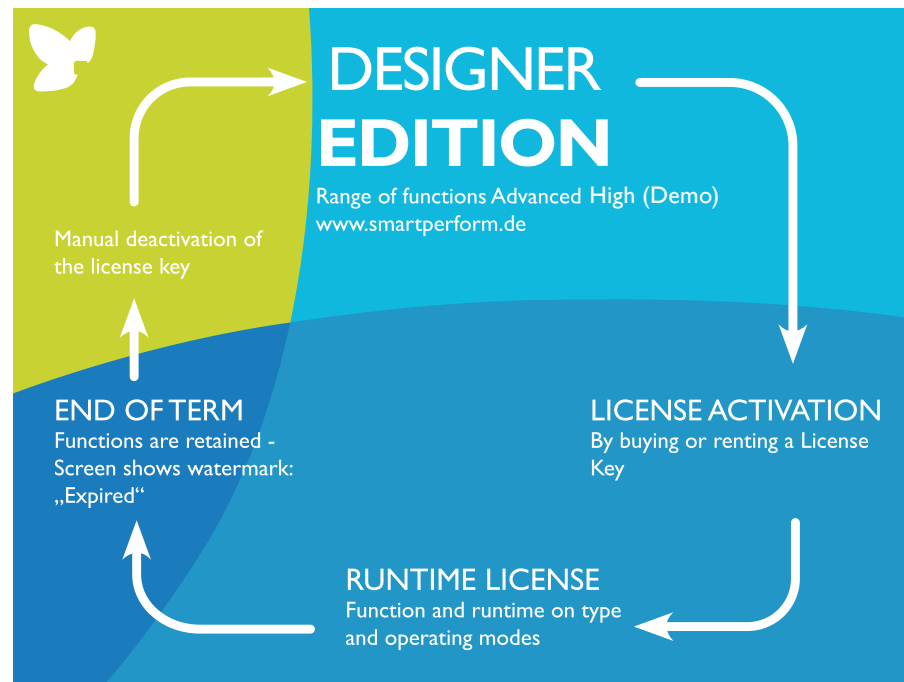| SOFTWARE	SERVICES	SMARTPERFORM USER INERFACES	HARDWARE	FINISHED APPLICATION
DESIGNER **EDITION**	DESIGN AND LOGICAL FUNCTIONS	smartPerform **APPLICATIONS** — STANDARD GUIs	AV/IT INFRASTRUCTURE — PLAYER **LICENSE**	PRODUCT BUNDLES
+	**=**	smartPerform **PRO** INDIVIDUAL GUIs	**+**	**=**
ADD ONs — 15°C	CONTENT			SYSTEM SOLUTIONS
WIDGET, APP, HTML, EXE	PICTURES, VIDEOS, PPT...			

Overview License Model
Creative Tools and Operating Licenses

The smartPerform Pro standard software combines in a single executable file all the functions for the creation, maintenance and operation of graphical user interfaces for all presentation and collaboration environments. The creation and maintenance of an individual user interface with smart functions (smartPerform Pro project) is done in the simplest way in smartPerform Pro content management mode. This creative tool is included in the work environment Designer Edition and in the Operating Licenses. Operating Licenses are required for the protected kiosk operation of a smartPerform Pro project. Different license and activation types define function scope, runtime and handling. Without a license, the functionality of the software corresponds to the Designer Edition Advanced (demo license).

License Cycle

DESIGNER EDITION

Range of functions Advanced High (Demo)
www.smartperform.de

Manual deactivation of the license key

LICENSE ACTIVATION
By buying or renting a License Key

END OF TERM
Functions are retained -
Screen shows watermark:
„Expired"

RUNTIME LICENSE
Function and runtime on type and operating modes

Function Overview
Light, Advanced and Ultimate in Comparison

smartPerform PRO

Functions	Runtime Licenses				Creative Tool			
	Interactive Player			ShowPlayer	Designer Edition			
	Light	Advanced	Ultimate	Ultimate	Advanced (Demo)	Ultimate	Ultimate Deploy	Ultimate Deploy User
Content Management								
Content Management Mode	✓	✓	✓	✓	✓	✓	✓	✓
Presentation Mode	✓	✓	✓	✓	—	—	—	—
Kiosk Mode	✓	✓	✓	✓	—	—	—	—
Distribution and Update of Projects (LAN or Cloud)	—	—	—	—	—	—	1 User	Additional User
Import of popular media formats[1]								
Images: PNG, BMP, TIFF, TIF, GIF, JPG, EXIF	✓	✓	✓	✓	✓	✓	✓	✓
Video: WMV, AVI, MPG, MPEG, MOV, FLV, MP4 (Codec needed)	✓	✓	✓	✓	✓	✓	✓	✓
Office: Word, Excel, PowerPoint[2]	✓	✓	✓	✓	✓	✓	✓	✓
PDF, HTM, HTML, URL, RTF	✓	✓	✓	✓	✓	✓	✓	✓
Generic XML, RSS, Exchange Calendar, Node Feeds	✓	✓	✓	✓	✓	✓	✓	✓
Active Directory Login	—	Option Network	✓	✓	—	✓	✓	✓
Active Login / Access to Cloud Storage[2]	—	Option Network	✓	Offline Sync	—	✓	✓	✓
Display / networking with external AV sources (wireless / cable)								
HDMI, DVI, Display Port, Barco Clickshare etc. (Video Input required)	✓	✓	✓	✓	✓	✓	✓	✓
BYOD mobile App/Web Browser (WAN/LAN/WLAN)	—	Option BYOD	✓	✓	—	✓	✓	✓
Microsoft Connect App (Win10), Touchback (compatible WLAN)	—	✓	✓	✓	✓	✓	✓	✓
AirServer UWP, Touchback (WLAN (Win), LAN/WLAN (iOS/Android), License)	—	✓	✓	✓	✓	✓	✓	✓
AirServer Desktop (WLAN (Win), LAN/WLAN (iOS/Android), License)	—	✓	✓	✓	✓	✓	✓	✓
Connected Collaboration (Ultra VNC License, WAN(VPN)/LAN/WLAN)	—	✓	✓	✓	✓	✓	✓	✓
Streaming UDP, RTP (both Uni-, Multicast), RTSP, HTTP (Codec required)	✓	✓	✓	✓	✓	✓	✓	✓
Applications[3]								
.EXE, .LNK, .APP	✓	✓	✓	✓	✓	✓	✓	✓
Widgets								
Weather (API-Key needed), Traffic[4], Count Down, Clock, Memory, ...	✓	✓	✓	✓	✓	✓	✓	✓
Widget SDK	—	—	—	—	—	—	—	—
Automatic Content Maintenance								
Synchronized Files / Directories (LAN or Cloud)[2]	✓	✓	✓	✓	✓	✓	✓	✓
Logic Controls for Synchronized Files / Directories	—	✓	✓	✓	✓	✓	✓	✓
Display XML Data (PIM, ERP, CRM...)	✓	✓	✓	✓	✓	✓	✓	✓
Manipulation XML Data (PIM, ERP, CRM...)	—	Option Data	✓	✓	—	✓	✓	✓
Display of room booking data (Reading Exchange v2019.2 read only)	✓	✓	✓	✓	✓	✓	✓	✓

1) The support of file types and their applications is subject to technical feasibility. This depends on available, open formats and interfaces of the respective manufacturer.
2) OneDrive, GoogleDrive, SharePoint, SharpCloud, others on request
3) Office requires editing formats and transition effects in PowerPoint
4) Selected current traffic news for all federal states (DE)

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Functions	Runtime Licenses				Creative Tool			
	Interactive Player			ShowPlayer	Designer Edition			
	Light	Advanced	Ultimate	Ultimate	Advanced (Demo)	Ultimate	Ultimate Deploy	Ultimate Deploy User
Content Inspector	✓	✓	✓	✓	✓	✓	✓	✓
Statistics	✓	✓	✓	✓	✓	✓	✓	✓
Log File with Messages for System Maintenance	✓	✓	✓	✓	✓	✓	✓	✓
Number of Documents	max. 100	no limit	no limit	no limit	no limit	no limit	no limit	no limit
Standard Functions								
Multi-Touch / Multi-User	✓	✓	✓	—	✓	✓	✓	✓
Single Desktop on the Main Screen	✓	✓	✓	✓	✓	✓	✓	✓
Screen Resolution < = 2K[1]	Low	Low	Low	Low	✓	✓	✓	✓
Screen Resolution < = 4K[2]	Medium	Medium	Medium	Medium	✓	✓	✓	✓
Screen Resolution > 4K	High	High	High	High	✓	✓	✓	✓
Screen Size < = 17", < = 4K[2], for mobile devices with accumulator	—	Mobile	Mobile	—	✓	✓	✓	✓
Operation of Additional Screens on a PC or on a mobile device	—	Option Multi Display	1 included	1 included	Option Multi Display	1 included	1 included	as in Ultimate Deploy
User Interfaces (Logic Control)	—	✓	✓	✓	✓	✓	✓	✓
Rights Management	—	✓	✓	✓	✓	✓	✓	✓
Presentation Functions								
Design Styles & Templates	✓	✓	✓	✓	✓	✓	✓	✓
Node Interaction (Zoom & Rotate, Wipe & Turn)	✓	✓	✓	—	✓	✓	✓	✓
Node Effects when Opening (Zoom, Shift, Crossfade)	✓	✓	✓	—	✓	✓	✓	✓
Node Effects when Switching to Fullscreen (Zoom, Crossfade)	✓	✓	✓	—	✓	✓	✓	✓
Node Effects on Transitions (Blur, Fade, Split, Fence, Brick,...)	✓	✓	✓	✓	✓	✓	✓	✓
Freeze Frame Animations (Center-In, Center-Out, Random,...)	✓	✓	✓	✓	✓	✓	✓	✓
Multi-/Single-Window	✓	✓	✓	✓	✓	✓	✓	✓
Fullscreen Modus	✓	✓	✓	✓	✓	✓	✓	✓
Content Link Modus	✓	✓	✓	—	✓	✓	✓	✓
Screen Saver	✓	✓	✓	✓	✓	✓	✓	✓
Media Control	✓	✓	✓	—	✓	✓	✓	✓
Playlists	✓	✓	✓	✓	✓	✓	✓	✓

1) Supports a maximum pixel count of 2,304,000 pixels per display, e.g. WUXGA at 1920x1200.
2) Supports a maximum pixel count of 8,847,360 pixels per display, e.g. 4K-DCI at 4096x2160.

Functions	Runtime Licenses				Creative Tool			
	Interactive Player			ShowPlayer	Designer Edition			
	Light	Advanced	Ultimate	Ultimate	Advanced (Demo)	Ultimate	Ultimate Deploy	Ultimate Deploy User
Playlist Functions								
Automatic Playback of Content	✔	✔	✔	✔	✔	✔	✔	✔
Main-Playlists / Sub-Playlists	✔	✔	✔	✔	✔	✔	✔	✔
Auto Playlists from File Directories	✔	✔	✔	✔	✔	✔	✔	✔
Adjustable Display and Times for Sub-Playlists and Content	✔	✔	✔	✔	✔	✔	✔	✔
Transition Effects (fade, displacement, cubes, etc.)	✔	✔	✔	✔	✔	✔	✔	✔
Collaboration Functions								
Pen Recognition for Whiteboard/Annotation (depending on touch hardware)	✔	✔	✔	—	✔	✔	✔	✔
Databasket	✔	✔	✔	—	✔	✔	✔	✔
Save or Distribute by Email, BYOD (requires BYOD)	✔	✔	✔	—	✔	✔	✔	✔
Logik Designer Advanced								
Extended Presentation Functions								
Switching Playlists and Layouts	—	✔	✔	✔	✔	✔	✔	✔
Control Language Selection	—	✔	✔	✔	✔	✔	✔	✔
Presentation Control	—	✔	✔	✔	✔	✔	✔	✔
Presets	—	✔	✔	✔	✔	✔	✔	✔
Logic Controls for Synchronized Files / Directories	—	✔	✔	✔	✔	✔	✔	✔
Further as Required	—	✔	✔	✔	✔	✔	✔	✔
Extended Collaboration Functions								
Use Local Directories	—	✔	✔	✔	✔	✔	✔	✔
Control of External Video Conferencing Software	—	✔	✔	—	✔	✔	✔	✔
Mind-Mapping	—	✔	✔	—	✔	✔	✔	✔
Further as Required	—	✔	✔	✔	✔	✔	✔	✔

Functions	Runtime Licenses				Creative Tool			
	Interactive Player			ShowPlayer	Designer Edition			
	Light	Advanced	Ultimate	Ultimate	Advanced (Demo)	Ultimate	Ultimate Deploy	Ultimate Deploy User
Logik Designer Ultimate								
BYOD								
Collaboration with iOS / Android Devices via Mobile App (WAN/LAN/WLAN)	—	Option BYOD	✓	✓	—	✓	✓	✓
Collaboration with Web Browser via Mobile Web Service (WAN/LAN/WLAN)	—	Option BYOD	✓	✓	—	✓	✓	✓
Multi Display[1]								
Extended Window Positioning	—	Option Multi Display	I included	I included	—	I included	I included	as in Ultimate Deploy
Remote Show	—		✓	✓	—	✓	✓	✓
Media Shelf	—		I included	I included	—	I included	I included	as in Ultimate Deploy
Device								
RS232 control, RFID (Further as Required)	—	Option Device	✓	✓	—	✓	✓	✓
Object Recognition[2]	—	Option Device	✓	—	—	✓	✓	✓
Network								
IP Control	—	Option Network	✓	✓	—	✓	✓	✓
Network Connectivity	—	Option Network	✓	—	—	✓	✓	✓
Active Directory Registration	—	Option Network	✓	—	—	✓	✓	✓
Active Login / Access to Cloud Storage[3] for Synchronization and Diploy	✓	✓	✓	✓	✓	✓	✓	✓
Data								
Manipulation XML Data (PIM, ERP, CRM...)	—	Option Data	✓	✓	—	✓	✓	✓

1) Is needed once per additional screen. Each multi display option extends the overall resolution by the maximum possible resolution of the respective license.
2) Requires TUIO protocol, Object Detection Software, Marker Objects
3) OneDrive, Google Drive, SharePoint, SharpCloud, others on request

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Function Overview
Widgets / Alternative Node Types

Widgets / Alternative Node Types		
Type	**Description**	**Included in all smartPerform license types**
Widget SDK	Software development kit for creating your own widgets. Programming knowledge required.	On demand.
Weather Widget	Local, current weather information. Requires individual APIKey from the content provider.	✔
Traffic Widget	Selected current traffic news for all federal states (DE)	✔
Clock Widget	Date and Time.	✔
Count Down Timer	Scheduling functions for meetings and presentations.	✔
Memory Widget	Individual memory game.	✔
Text Feed Node	Dynamic display of text content with variable layout. Supports generic XML, RSS, Exchange calendars, Atom, iCal for booking display and text file.¹⁾	✔
Signage	Automatic, time-controlled playback of content in playlists and sub-playlists. Adjustable display and stand times, transition effects.	✔
Interactive Map	Interactive map with definition of points of interest.	✔
Media Shelf	Relocation of nodes via drag&drop and logic to additional screens. Remote control and annotation of content is possible.	Option Multi Display

1) When using transition effects in the ticker text / ticker window, there may be restrictions in the flow of the text display in individual cases for technical reasons.

Function Overview
BYOD Mobile App / BYOD Web-Service

BYOD Mobile App / BYOD Web-Service		
Type	**Description**	**Included in all smartPerform license types**
BYOD Mobile App	Collaboration and moderation functions in use in meeting and presentation applications in connection with smartPerform apps such as the Collaboration App and in all smartPerform Pro applications with at least the following functions: Viewing, collaborative sketching, annotating, marking current screen content, creating comments with Post-It function, uploading/downloading/sharing content, remote control and moderation, QR code recognition or URL with Session ID for Log In.	For devices with iOS (from V8) or Android (from V4.4) operating systems. A mobile access point (WLAN / LAN, a PC with a smartPerform Pro application or a Collaboration/Education App is required. You can get the smartPerform Bring Your Own Device App (BYOD) from your App Store or Google Play.
BYOD Web-Service		For devices with an Internet browser. A mobile access point (WAN / WLAN / LAN and a PC with a smartPerform Pro application or collaboration app is required.

Information for Using Web Browsers
Chromium-R, Chromium and Internet Explorer 11 in Comparison

Web Browser Version	Chromium-R	Chromium	Internet Explorer 11
Description	Chromium-R is a rotatable, smartPerform integrated web browser based on Chromium Basis	Chromium-R is a smartPerform integrated web browser based on Microsoft Edge (Chromium) Basis	Internet Explorer 11 is a standard Windows web browser
Functions			
Rotatable Website (Touch Table)	yes	no	no
Plays MP3, MP4	no	yes	yes
Plugin Integration	no, individual plugins may be supported (test required)	yes (Microsoft Edge (Chromium-Basis) must be installed)	yes (requires Internet Explorer 11 installation)
Zoomable Content via Touch within Website	yes	yes	yes
Recommended Use Case	application for multi-touch table	best practice is to use Multi-Fokus Mode only in full screen mode	best practice is to use Multi-Fokus Mode only in full screen mode

Information for Using of Token Technologies
For the Recognition of Coded Avatars on a Touch Screen Table

When using token technologies from different manufacturers, the range of functions of smartPerform is limited for technical reasons.
of smartPerform due to technical reasons, if the token technology simulates touch inputs via several contact areas. The Windows operating system always interprets the first touch point as a mouse click. smartPerform offers a number of function components that react to this mouse click and can lead to undesired effects. Therefore, please observe the following notes when creating your application interfaces using the respective token technology.

Components[1]	Token technology with touch inputs simulation	Token technology without touch inputs simulation
Pictures	✔	✔
Videos	✔	✔
One-Sided PDF Files	✔	✔
PowerPoint – Picture Viewer	✔	✔
Simple Containers (without scrollbar)	✔	✔
Multi-Page PDF Files	–	✔
Web Pages	–	✔
Sketches/Annotation Functions	–	✔
Databasket	–	✔
Scrollbars	–	✔
Text Input/On-Screen Keyboard (Websites, Email, ...)	–	✔
File Manager/Advanced File Select Dialog	–	✔
External Applications	–	✔
List View Container	–	✔
Submenus in the MenuBar	–	✔
QuickNavigationBar	–	✔
Sitemap	–	✔
MediaShelf	–	✔
Count Down Timer	–	✔

1) More in the same context. Please inquire if necessary.

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Licenses and Operation

Different usage variations are possible for operation in any network or for operation in the domain of the end user.
Depending on this, different license and financing models are available.

Pay Per Day Use
Pay per day use for the rental business with 1-X rental days. A Pro Support Agreement with software maintenance, 3rd, 2nd level support and user support is included. Other services optional.

Software as a Service
Long-term rental model for rental business and end customers with a contract term of >= 1 year and 6 weeks notice period at quarter end in use for any number of accounts. A Pro Support Agreement with software maintenance, 3rd, 2nd level support and user support is included. Other services optional.

Purchase
Purchase model for the reseller and end customer. Acquisition of licenses for an end user. The operation of the licenses takes place in the network of the end user. Various support agreements and software maintenance are available as options.

Purchase with Rental Option
Purchase model for rental business. Acquisition of licenses for rental. The purchase requires a Pro Support Agreement with software maintenance, 3rd, 2nd level support, and user support for at least 1 year. The warranty is limited to the term of the Pro Support Agreement.

Selection Criteria	Pay Per Day Use	Software as a Service	Purchase with Rental Option	Purchase
Licensee End User	yes	yes	no	yes
Licensee Rental Partner	yes	yes	yes	no
Operation in IT Environment of the End User	yes	yes	yes	yes
Operation in any IT Environment	yes	yes	yes	no

We are pleased to assist you in the selection.

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License Activation
License Key, Dongel and Co.

To activate the desired range of functions for operation, the installed one requires smartPerform Pro software a license key. Different variants are possible depending on the purpose of use, the operating environment and the applications.

Versions

Activation	License Key	License File	Dongle[2] + License File
Application	preferred variant with internet connection	optional version without internet connection	optional version without internet connection
Usage			
Pay Per Day Use	with start / end date	license file with start / end date	no
Software as a Service Per Month	with start / end date	license file with start / end date	license file with start / end date
Purchase with Rental Option	limitation on updates / upgrades depending on service agreements		
Purchase	limitation for updates / upgrades depending on service agreements		
Selection Criteria			
Computer Pool Larger than Number of Licenses	yes[1]	no	yes
Connection to the Internet	yes	no	no
Hardware ID of the Computer	automatic transmission	manual transmission	not required
Update & Upgrade	automatic check	requires updated license file	requires updated license file

1) Adjustable, automatic deactivation after X days.
2) New purchase when the Dongle is lost. Please always specify the desired activation type when placing your order.

Hardware Requirements

To operate the Designer Edition and the operating licenses, smartPerform Pro requires computers with a Windows operating system. Depending on the use and application, there are different requirements regarding the configuration, such as computing power (processor/ graphic board) or structural design (OPS, box, tower, 19" housing). For the selection of the graphic boards, the resolution and bit rate of the film material and the quantity of simultaneously presented content are also relevant. In the following, we will describe structural designs and computer configurations for typical application scenarios. Is your application not included in the descriptions? We will gladly advise you in selecting the right device classes for your smartPerform Pro application.

Computer

Structural Design	OPS/OPS+ PC	Mini PC/NUC PC	Small Form factor/Tower/19" Housing
Description	OPS PC are integrated directly into a slot in the screen. Computer and graphic board performance are frequently not comparable with the usual standards. However, if the ratio of performance to system requirements is right, you will find a compact solution here.	Mini PCs offer great performance in a very small area and are perfectly suitable for many smartPerform Pro applications. Thanks to the corresponding VESA supports, installation behind a screen is quite simple.	These housing shapes enable the installation of one or multiple dedicate graphic boards and integrated video input cards. These structural forms consequently offer highest flexibility and expandability of the system.
Noise Level (Fan Noise)	mostly high	mostly high	mostly low
CPU, Graphic Boards, other Equipment	onboard, not expandable	onboard, not expandable	equipment selectable as needed
Services	A comparison with the recommended configuration for operating smartPerform Pro is required due to different needs. For these structural forms, this applies especially for the operation of => 4K screens.		A comparison with the recommended configuration for operating smartPerform Pro is required due to different needs.
External Video Input	not integrated, only possible via external USB video input devices	not integrated, only possible via external USB video input devices	video input cards which can be integrated
Switch-on Process	by switching on the screen	Switch-on via screen not possible. Performed via wake-on-LAN or via external start mechanisms.	Switch-on via screen not possible. Performed Pro via wake-on-LAN or via external start mechanisms.
Assembly	simple assembly with standard assembly accessories	simple assembly with standard assembly accessories	Assembly is only possible with individual solutions. Installation in a rack, furniture or trolley with body is recommended.

All information is non-binding. Comparable, more powerful/up-to-date alternatives are possible.
We would love to advise you on the selection of suitable components for smartPerform.

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Hardware Requirements
For the Operation of Interactive Displays

Computer

Equipment	Minimum Requirements	Recommended for Mobile Laptops/ Tablets	Recommended for PCs 2K (Full HD) Resolution	Recommended for PCs 4K (UHD) Resolution	Recommended for PCs 6K Resolution
Processor	10./11. Gen. Intel® Core™, i3-10110U 3./4./5. Gen. AMD Ryzen™, 5 PRO 2400GE (min. 1,4 GHz Base Frequency, min. 3,5 GHz Turbo Frequency)	10./11. Gen. Intel® Core™, i7-1165G7 4./5. Gen. AMD® Ryzen™, 5 4500U (min. 1,6 GHz Base Frequency, min. 4,0 GHz Turbo Frequency)	10./11. Gen. Intel® Core™, i5-10400 3./4./5. Gen. AMD Ryzen™, 5 PRO 3400GE (min. 2,5 GHz Base Frequency, min. 4,0 GHz Turbo Frequency)	10./11. Gen. Intel® Core™, i7-11700 3./4./5. Gen. AMD Ryzen™, 7 4700G (min. 2,5 GHz Base Frequency, min. 4,4 GHz Turbo Frequency)	Intel® Xeon® W Processor 3225 (min. 3,7 GHz Base Frequency), ASUS Pro WS C621-64L SAGE
Graphic Card	Onboard- Intel® UHD-Grafik 620, AMD Radeon™ Vega	Onboard oder Dedicated - NVIDIA® GeForce® MX450, Intel® Iris® Plus, Intel® Iris® Xᵉ, AMD Radeon™ Vega	Dedicated - NVIDIA® Quadro® P620, NVIDIA® GeForce® GTX 1650	Dedicated - NVIDIA® Quadro RTX™ 4000, NVIDIA® GeForce® RTX 3060 Ti™, NVIDIA® GeForce® RTX 2060 SUPER™	Dedicated - 3x NVIDIA® Quadro RTX™ 5000 + 1x Nvidia® Quadro® Sync II
RAM	min. 8 GB	min. 8 GB	min. 8 GB	min. 16 GB	min. 32 GB RAM
Drive	SSD	M.2 PCIe® NVMe™ SSD	M.2 PCIe® NVMe™ SSD	M.2 PCIe® NVMe™ SSD	M.2 PCIe® NVMe™ SSD
Operating Software Note: For the current version of smartPerform, a current software version is required for the operating system	Windows 10 or higher (64-Bit), Microsoft®.Net Framework .Net 6	Windows 10 or higher (64-Bit), Microsoft®.Net Framework .Net 6	Windows 10 or higher (64-Bit), Microsoft®.Net Framework .Net 6	Windows 10 or higher (64-Bit), Microsoft®.Net Framework .Net 6	Windows 10 or higher (64-Bit), Microsoft®.Net Framework .Net 6
Optional Software	Microsoft Office 2016	Microsoft Office 2019	Microsoft Office 2019	Microsoft Office 2019	Microsoft® Office 2019
	Other software for the editing mode or representation of certain file formats or program, Video codec pack, video conferencing codecs, etc.				
Video Input Cards	Practically all cards with DirectShow function are supported such as products from Datapath or Epiphan. The following criteria are relevant for the use of smartPerform Pro: - resolution - number of inputs = simultaneous display of video signals in smartPerform - audio integration - internal plug-in card (PCI-e 4- / 8-way), for example, respective Datapath series - external USB device, for example, respective Epiphan series				

All information is non-binding. Comparable, more powerful/up-to-date alternatives are possible. We would love to advise you on the selection of suitable components for smartPerform.

Hardware Requirements
For the Operation of Passive Displays

Computer

Equipment	Minimum Requirements	Recommended for Mobile Laptops/Tablets	Recommended for PCs 4K (UHD) Resolution
Processor	10./11. Gen. Intel® Core™, i3-10110U 3./4./5. Gen. AMD Ryzen™, 5 PRO 2400GE (min. 1,4 GHz Base Frequency, min. 3,5 GHz Turbo Frequency)	10./11. Generation Intel® Core™, i5-1135G7 3./4./5. Generation AMD Ryzen™, 3 PRO 3200GE (min. 2,0 GHz Base Frequency, min. 3,8 GHz Turbo Frequency)	10./11. Generation Intel® Core™, i5-10400 3./4./5. Generation AMD Ryzen™, 5 PRO 3400GE (min. 2,5 GHz Base Frequency, min. 4,0 GHz Turbo Frequency)
Graphic Card	Onboard - Intel® UHD-Grafik 620, AMD Radeon™ Vega	Onboard or Dedicated - NVIDIA® GeForce® MX450, Intel® Iris® Plus, Intel® Iris® X^e, AMD Radeon™ Vega	Dedicated - NVIDIA® Quadro® P620, NVIDIA® GeForce® GTX 1650
RAM	min. 8 GB	min. 8 GB	min. 8 GB
Drive	SSD	M.2 PCIe® NVMe™ SSD	M.2 PCIe® NVMe™ SSD
Operating Software **Note:** For the current version of smartPerform, a current software version is required for the operating system	Windows 10 or higher (64-Bit), Microsoft®.Net Framework .Net 6	Windows 10 or higher (64-Bit), Microsoft®.Net Framework .Net 6	Windows 10 or higher (64-Bit), Microsoft®.Net Framework .Net 6
Optional Software	Microsoft Office 2016 Other software for the editing mode or representation of certain file formats or program, Video codec pack, video conferencing codecs, etc.	Microsoft Office 2019	Microsoft Office 2019
Video Input Cards	Practically all cards with DirectShow function are supported such as products from Datapath or Epiphan. The following criteria are relevant for the use of smartPerform Pro: - resolution - number of inputs = simultaneous display of video signals in smartPerform - audio integration - internal plug-in card (PCI-e 4- / 8-way), for example, respective Datapath series - external USB device, for example, respective Epiphan series		

All information is non-binding. Comparable, more powerful/up-to-date alternatives are possible.
We would love to advise you on the selection of suitable components for smartPerform.

DESIGNER
EDITION

PLAYER
LICENSE

smartPerform
PRO

Equipment

Depending on the use of the interactive applications, e.g. as a multi-touch table, wall display, power wall, stele, lectern, tablet or laptop solutions, different requirements are imposed on the peripheral systems such as displays, touch technologies or sensors.

The following is an overview of the most important device groups. We would be pleased to advise you on the selection of your accessories for smartPerform Pro.

Periphery

Displays & Touch Technologies	All Microsoft® Windows compatible touch displays (HID) are suitable for operation with smartPerform Pro applications. Regarding equipment, brightness, operating time of the respective display technology, the manufacturer's customary design specifications apply. When selecting, the following factors must be considered in conjunction with a smartPerform Pro application: - the use of displays as touch tables requires a release for the horizontal installation by the manufacturer. - for simultaneous operation with several fingers (i.e. zoom functions) or through multiple users (multi-touch / multi-user) is based on the number of maximum values touch points. - when selecting the touch technologies (camera / IR / capacitive - integrated or as an attachment frame) or when using systems for gesture control (i.e. Kinect or Radar-Touch) are interactions with factors of the operating environment and usability.
Pen Recognition for Annotations	If the touch technology of an interactive screen detects whether the finger, ball of the hand or pen is being used, this function can also be used in a smartPerform application e.g. for finger manipulation, erasing with the ball of your hand and drawing with a pen.
Sensors	RFID Read-Write (Phidget 1024_0), Pick Up, Presence, Motion, Eye Tracking, Gender, IO, Humidity, Temperature, Air Gesture, Ambient Light Senor (Nexmosphere series).
Object Recognition	Requires TUIO protocol, object recognition software, and marker objects (tokens) from the hardware manufacturer.
Integration of Smartphones / Tablets (iOS/Android operating systems)	For the integration of mobile devices with iOS / Android operating system application-specific APPs are offered: (www.smartperform.de).
Integration of Computers without smartPerform Pro (Web browser)	For the integration of computers without a smartPerform Pro application, application-specific HTML pages are offered: (www.smartperform.de).

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