Product Update

eX200 - Wayland

eX200 Series: A New display server technology

As HMI manufactures, EXOR wishes to use standard and solid technology to display information in a screen. One of these technologies is **X11**, a display server technology being used since 1987, developed over a long period of time.
Although stable and widely used in many scenarios, X11 is slowly being replaced by **Wayland**, a nascent streamlined technology capable of maximizing performances of visualization, providing more modern experiences (such as making 3d modeling, smooth videos in high resolution).
In fact, this is not really a new topic: all EXOR WEB HMIs are already gaining benefits from Wayland, since the default BSP (2.x) is based on it.

> **i** There is much online content about this topic, more or less technical.
> One instance here, for your reference:
> https://www.youtube.com/watch?app=desktop&v=AIxmYKw79HU

Facts that make Wayland the best choice for EXOR HMI use case:

- Hardware component Manufacturers (such CPUs) are slowly leaving X11 and supporting Wayland.
- Cybersecurity. Being recognizable as the most used standard, Wayland will benefit for the best maintenance from Cybersecurity perspective. A point we strongly believe will be crucial in next years.
- Optimizing BSP process, by unifying updates (same BSP for WEB HMI and JMobile HMIs)
- Video and Streams: Wayland is the base. In fact, all limits of video performances will be overcome.
- OpenGL: libraries for dynamic and 3d content. It has always been challenging to display complex graphic. Wayland will bring much more capabilities.
- Display orientation: sometime portrait mode has shown limitations and graphic artifacts. Wayland will bring more possibilities to overcome them.
- More fluidity in widget animations (like scrolling and effect on gestures)
- Asset for activities of display dimming. Especially in marine word, this is a crucial topic, where Wayland will improve the experience.
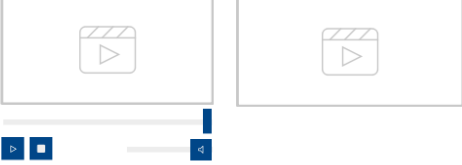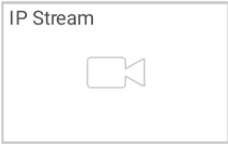
Starting from this JMobile version, the new eX200 is now selectable from project wizard (activity JM-19460).

This HMI serie introduces the usage of a new BSP (named 4.x), which will use Wayland as display server technology.

Being aware of the strategic advantages that this BSP brings today and tomorrow, the introduction of Wayland has had side effects for eX200 series and JMobile.
Table below resumes the known issues up today.

Despite the limited impact of the following temporary constraints, we encourage you to report to commercial reference any issue related to them. EXOR will is to satisfy at 100% any need, without losing the focus from today's needs.

Function	Details
Video streams	Widgets that are based on *gstreamer* component are currently not supported in this HMI series. Widgets are: - *Media* and *Media Player* widgets - *IPStream* widget Internal ticket for this activity: JM-20890

Logger window in runtime	In this HMI serie, log windows can not be seen from Runtime. It can still be accessed in two ways:
	- via *System Settings > Logs > Save*
	  accessible both via HMI or via web browser
	
	- via *Context Menu > Start Log to File*
	  logger.txt will be accessible in path
	  /mnt/data/hmi/qthmi/deploy/var/log
	
	Internal ticket for this activity: JM-20891

Runtime position of non modal dialog pages	With this HMI serie it is not possible to create non modal dialog pages capable to open in a dynamic position. Internal ticket for this activity: JM-20882
Login form of HMI client minor issue	When using HMIClient and asked for Username and Password, when clicking OK to login, the dialog will move in top right corner. Internal ticket for this activity: JM-20300