Talan
The future is a playfield

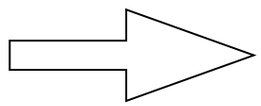
Equipe mobile AR

Guide de démarrage

Version : 1.0 (draft)

1-Onboarding

- présentation de Talan
- présentation de l'équipe
- présentation des projets/objectifs
- présentation de la réalité augmentée



Réunions à organiser avec
Julien, Thierry ou Lionel

- prise de connaissance des processus Talan* :
  - règles de sécurité
  - infrastructure (réseau, serveurs…)
  - lecture des documentations internes

- vérification/configuration bureautique :
  - compte utilisateur (authentification, droits…)
  - adresse email
  - réseau (accès intranet, accès extérieur, proxy…)
  - divers (accès GIT, JENKINS, JIRA, Confluence…)

- prise de connaissance approfondie des projets :
  - lecture du code source
  - lecture des documentations
  - exécution du projet sur mobile

*Voir les documentations fournies en annexe.

2- Installation de l’environnement de développement

iOS :

Logiciels	Payant	Priorité
MacOS Mojave - version 10.14.6	NON	1
xCode - version 11	NON	1
Ruby - version (à définir)	NON	1
Rake - version (à définir)	NON	1
Python - version (à définir)	NON	1
Charles proxy	OUI	3
PAW - version >= 3.1.8	OUI	3
Maya - version >= 2019	OUI	2
Blender - version >= 2.80	NON	2
Adobe XD - version >= 22.7	NON	1
Adobe Photoshop CC - version >= 20.0.6	OUI	2

Android :

Logiciels	**Payant**	**Priorité**
MacOS Mojave - version 10.14.6	NON	1
Android Studio - version 3.5	NON	1
Ruby - version (à définir)	NON	1
Rake - version (à définir)	NON	1
Python - version (à définir)	NON	1
Charles proxy	OUI	3
PAW - version >= 3.1.8	OUI	3
Maya - version >= 2019	OUI	2
Blender - version >= 2.80	NON	2
Adobe XD - version >= 22.7	NON	1
Adobe Photoshop CC - version >= 20.0.6	OUI	2

3- Réalité augmentée

Liens importants.

SDK :
- ARKit (iOS) - https://developer.apple.com/augmented-reality/
- ARCore (Android) - https://developers.google.com/ar
- Vuforia (iOS et Android) - https://www.ptc.com/en/products/augmented-reality

Documentations :
- ARKit (iOS) - https://developer.apple.com/documentation/arkit
- ARCore (Android) - https://developers.google.com/ar/reference
- Vuforia (iOS et Android) - https://library.vuforia.com/getting-started/overview.html

Guidelines :
- ARKit (iOS) - https://developer.apple.com/design/human-interface-guidelines/ios/system-capabilities/augmented-reality/
- ARCore (Android) - https://developers.google.com/ar/develop/developer-guides/design-guidelines

Divers :
- Introduction - https://fr.wikipedia.org/wiki/Réalité_augmentée
- 3D algorithmes et mathématiques - https://www.scratchapixel.com
- Path tracing (Disney) - https://youtu.be/frLwRLS_ZR0

Samples (iOS) :

- https://developer.apple.com/documentation/arkit/placing_objects_and_handling_3d_interaction
- https://developer.apple.com/documentation/arkit/tracking_and_visualizing_planes
- https://developer.apple.com/documentation/arkit/saving_and_loading_world_data
- https://developer.apple.com/documentation/arkit/occluding_virtual_content_with_people
- https://developer.apple.com/documentation/arkit/tracking_and_visualizing_faces
- https://developer.apple.com/documentation/arkit/capturing_body_motion_in_3d
- https://developer.apple.com/documentation/arkit/tracking_and_altering_images
- https://developer.apple.com/documentation/arkit/detecting_images_in_an_ar_experience
- https://developer.apple.com/documentation/arkit/scanning_and_detecting_3d_objects
- https://developer.apple.com/documentation/arkit/adding_realistic_reflections_to_an_ar_experience
- https://developer.apple.com/documentation/arkit/creating_a_multiuser_ar_experience
- https://developer.apple.com/documentation/arkit/swiftshot_creating_a_game_for_augmented_reality
- https://developer.apple.com/documentation/arkit/creating_an_immersive_ar_experience_with_audio
- https://developer.apple.com/documentation/arkit/recognizing_and_labeling_arbitrary_objects
- https://developer.apple.com/documentation/arkit/effecting_people_occlusion_in_custom_renderers

Vidéos à voir (iOS WWDC 2019) :

- https://developer.apple.com/videos/play/wwdc2019/602
- https://developer.apple.com/videos/play/wwdc2019/603
- https://developer.apple.com/videos/play/wwdc2019/604/
- https://developer.apple.com/videos/play/wwdc2019/605
- https://developer.apple.com/videos/play/wwdc2019/607
- https://developer.apple.com/videos/play/wwdc2019/609
- https://developer.apple.com/videos/play/wwdc2019/610
- https://developer.apple.com/videos/play/wwdc2019/612

Vidéos à voir (iOS WWDC 2018/2017) par exemple :

- https://developer.apple.com/videos/play/wwdc2017/602/
- https://developer.apple.com/videos/play/wwdc2018/602

Samples (Android) :

- https://github.com/google-ar
- https://developers.google.com/ar/develop/java/sceneform/samples
- https://github.com/google-ar/sceneform-android-sdk/tree/master/samples/hellosceneform
- https://github.com/google-ar/sceneform-android-sdk/tree/master/samples/animation
- https://github.com/google-ar/sceneform-android-sdk/tree/master/samples/augmentedfaces
- https://github.com/google-ar/sceneform-android-sdk/tree/master/samples/augmentedimage
- https://github.com/google-ar/sceneform-android-sdk/tree/master/samples/solarsystem
- https://github.com/google-ar/sceneform-android-sdk/tree/master/samples/chromakeyvideo
- https://github.com/google-ar/sceneform-android-sdk/tree/master/samples/videorecording

Vidéos à voir (Android) :

- https://youtu.be/ttdPqly4OF8
- https://youtu.be/pdRpCJ5acrA
- https://youtu.be/TGtFqe4s51o
- https://youtu.be/rFbcOGuDMPk
- https://youtu.be/1TF7esI3sMQ