



MOSAIC

VITA

VENDOR
INITIAL
TECHNICAL
ASSESSMENT

VERSION 1.0

Please NOTE:

- This assessment is *non-binding*.
- This assessment is *not a legal document*.
- This assessment contains *no proprietary information*.

CREATIVE SERVICES

www.emscharf.com

Document History

Version #	Date	Written/Revised By	Description
V1.0	2023-01-24	Eric M. Scharf Solution Design Architect	VITA (Vendor Initial Technical Assessment)



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This VITA (Vendor Initial Technical Assessment) is a scalable test that allows a vendor to deliver a result that is focused on one, more, or all allowable test components.

Allowable test components can involve *individual* deliverables (or a *single interactive application* collectively containing each) of the following:

- One real-time 3D object
- One real-time 3D character
- One real-time 3D environment
- One Custom GUI (real-time embedded *or* static overlay)
- One Login/Splash Screen

Individual test components must be delivered in .FBX format.

A collective application must be delivered in .APK or .EXE format or as a WebGL solution.

PLEASE NOTE: The *vendor* determines the depth of their test submission, but the greater the sample, the more significant the considered opportunity by The Mosaic Company.

AVAILABLE TEST COMPONENTS FROM WHICH THE VENDOR CAN CHOOSE

3D OBJECT: Pad-mounted green transformer (elements of which can be animated in combination with a field technician 3D character).

3D CHARACTER: Field technician (which can be animated through interaction with the pad-mounted transformer or through different character poses and/or a walk cycle).

3D ENVIRONMENT: Commercial transformer installation (which can include cement bollards and landscaping which surrounds the pad-mounted green transformer).

CUSTOM GUI: Demonstrate visual asset management within a single application (e.g., hiding/unhiding scene elements or annotations, toggling between 3D shaded/wireframe or detail-level modes for all components, help menu to define user controls).

LOGIN/SPLASH SCREEN: Demonstrate a logo-adorned login screen within a single application (where users can enter a unique access code to gain entry).

ADDITIONAL CONSIDERATIONS FOR TEST SUBMISSIONS

The Mosaic Company views *real-time* 3D components as critical to successful client simulations, but *high-detail* 3D components are also leveraged for animated cut scenes and marketing collateral. The vendor can similarly choose to deliver both real-time and high-detail components for their test submission, as well.

While the vendor can choose to be as specific as they prefer with high-detail 3D modeling, texture-map format (file type and resolution), custom material shaders (for applying additional characteristics to texture-maps), UV-mapping, rigging, and animation (including special effects), the vendor should ensure the real-time 3D assets are *optimized* for at least 60 FPS (Frames Per Second) performance within a real-time 3D scene. Optimization is *expected* to impact geometry, texture-map size, UV-mapping, rigging, and animation, however, texture-map compression should be avoided.

Real-time 3D components – when presented within an *application deliverable* – should *also* include optimized, *mesh-based* collision volumes.

3D OBJECT:
Pad-Mounted
Transformer



3062

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WARNING
KEEP OUT
HIGH VOLTAGE
DANGER OF DEATH

500
208Y/120
08429115

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3D OBJECT:
Pad-Mounted
Transformer



3D OBJECT:
Pad-Mounted
Transformer



3D OBJECT:
Pad-Mounted
Transformer



**3D OBJECT:
Pad-Mounted
Transformer**



3D OBJECT:
Field Technician



3D OBJECT:
Field Technician



**3D OBJECT:
Field Technician**



**3D OBJECT:
Field Technician**



**3D OBJECT:
Field Technician**



3D OBJECT:
Commercial
Installation



**3D OBJECT:
Commercial
Installation**



HOW TEST SUBMISSIONS WILL BE REVIEWED

Test submissions – based upon the components *chosen by the vendor* – will be given a fit-and-finish review on the presence and quality of the following categories.

3D Modeling (Real-Time/High-Detail)	Rigging and Animation (Object/Character/Environment)
3D Modeling (Smoothing Group Usage)	Rigging and Animation (Character Poses)
Texture-maps (Detail level vs Single-Use/Seamless Tile)	All-inclusive Application (.APK, .EXE, or WebGL)
Material Shaders (Pixel vs Vertex)	GUI (Visual Quality vs Composition vs User Experience)
Lighting (Real-Time vs Baked-in Light-mapping)	Login/Splash Screen (Elegance vs Simplicity)

REMINDER: It is the *vendor's* choice to fulfill one, some, or all allowable parameters within their test submission. The more robust the submission (reasonably demonstrating *full service* capabilities), the greater the consideration by The Mosaic Company and the larger the potential opportunity or opportunities.

ADDITIONAL REFERENCE MATERIALS

PAD-MOUNTED TRANSFORMER FEATURES –

<https://www.youtube.com/watch?v=q1FDgD63ngE>

PAD-MOUNTED TRANSFORMER OPEN-AND-CLOSE GUIDELINES –

<https://ermco-eci.com/wp-content/uploads/2021/07/TP-PAD-Video.mp4>

***Please NOTE:* Vendors are not restricted to the provided reference materials.
Alternatively-sourced reference imagery is encouraged for best possible test results.**

POINT OF CONTACT at THE MOSAIC COMPANY

Eric M. Scharf

Solution Design Architect

224-488-0193 (Mobile)

erics@themosaiccompany.com