

Zen UV Core API

The general object of the core is to calculate mapping and isomorphism of two structures without geometry usage

Language	Polys	Tris	Verts	Elapsed Time
C++	148745	251085	148651	~9000ms
Python	148745	251085	148651	~68000ms

Zen UV Fast Calculation Utils

Creates an instance of ZenUv calculating object

```
extern "C" ZEN_UV_API ZenUv* ZenUv_new();
```

Deletes an instance of ZenUv calculating object

```
extern "C" ZEN_UV_API void ZenUv_delete(ZenUv* val);
```

Prepare structure data for calcution

```
extern "C" ZEN_UV_API void ZenUv_appendAdj(ZenUv* val,  
    int32_t type,  
    int32_t key,  
    int32_t *input,  
    uint32_t size);
```

Calculates mapping and isomorphism of two structures without geometry usage

```
extern "C" ZEN_UV_API int32_t* ZenUv_calc(ZenUv* val,  
    bool &similar, int32_t &outSize, int32_t &errorCode);
```

Retrieves the last calculating error

```
extern "C" ZEN_UV_API const char *ZenUv_getErrorStr(int32_t errorCode);
```

Zen UV OS Utils

We tried to perform the fastest calculation algorithm for mapping and isomorphism of two structures without geometry usage but still some procedures may take a long time period that's why we use OS utils to inform user about progress of operation

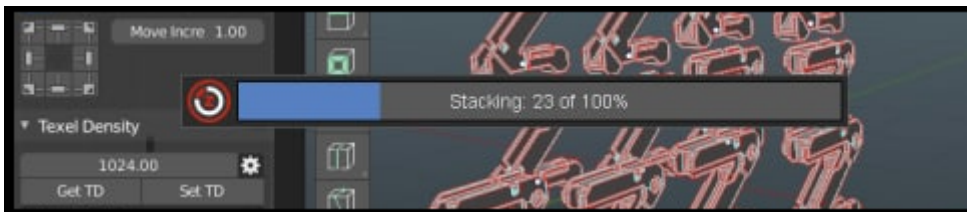
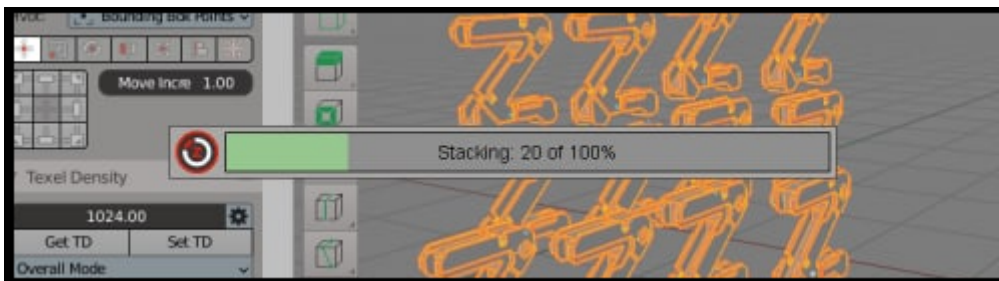
Creates OS Object

```
extern "C" ZEN_UV_API ZenUvOS* ZenUvOS_new();
```

Deletes OS Object

```
extern "C" ZEN_UV_API void ZenUvOS_delete(ZenUvOS* val);
```

ProgressBar Utils



Prepare progress theme by setting colors

```
extern "C" ZEN_UV_API void ZenUvOS_SetTaskbarProgressTheme(ZenUvOS* val,  
    ZenUvProgressTheme theme);
```

Setup progress bounds

```
extern "C" ZEN_UV_API void ZenUvOS_SetTaskbarProgressBounds(ZenUvOS* val,  
    ZenUvProgressBounds bounds);
```

Sets current progress value

```
extern "C" ZEN_UV_API void ZenUvOS_SetTaskbarProgress(ZenUvOS* val,  
    uint64_t position, uint64_t max, const wchar_t *text);
```

Show or hide progress

```
extern "C" ZEN_UV_API void ZenUvOS_SetTaskbarProgressVisible(ZenUvOS* val,  
    bool visible, const wchar_t *text);
```

Gets main window title

```
extern "C" ZEN_UV_API void ZenUvOS_GetMainWindowTitle(ZenUvOS* val,  
    wchar_t *text, uint32_t size);
```

Sets main window title

```
extern "C" ZEN_UV_API void ZenUvOS_SetMainWindowTitle(ZenUvOS* val,  
    const wchar_t *text);
```