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Advanced Automotive Workflows with SHOTGUN

Brandon Tasker

Product Manager | Automotive & Conceptual Design @ Autodesk

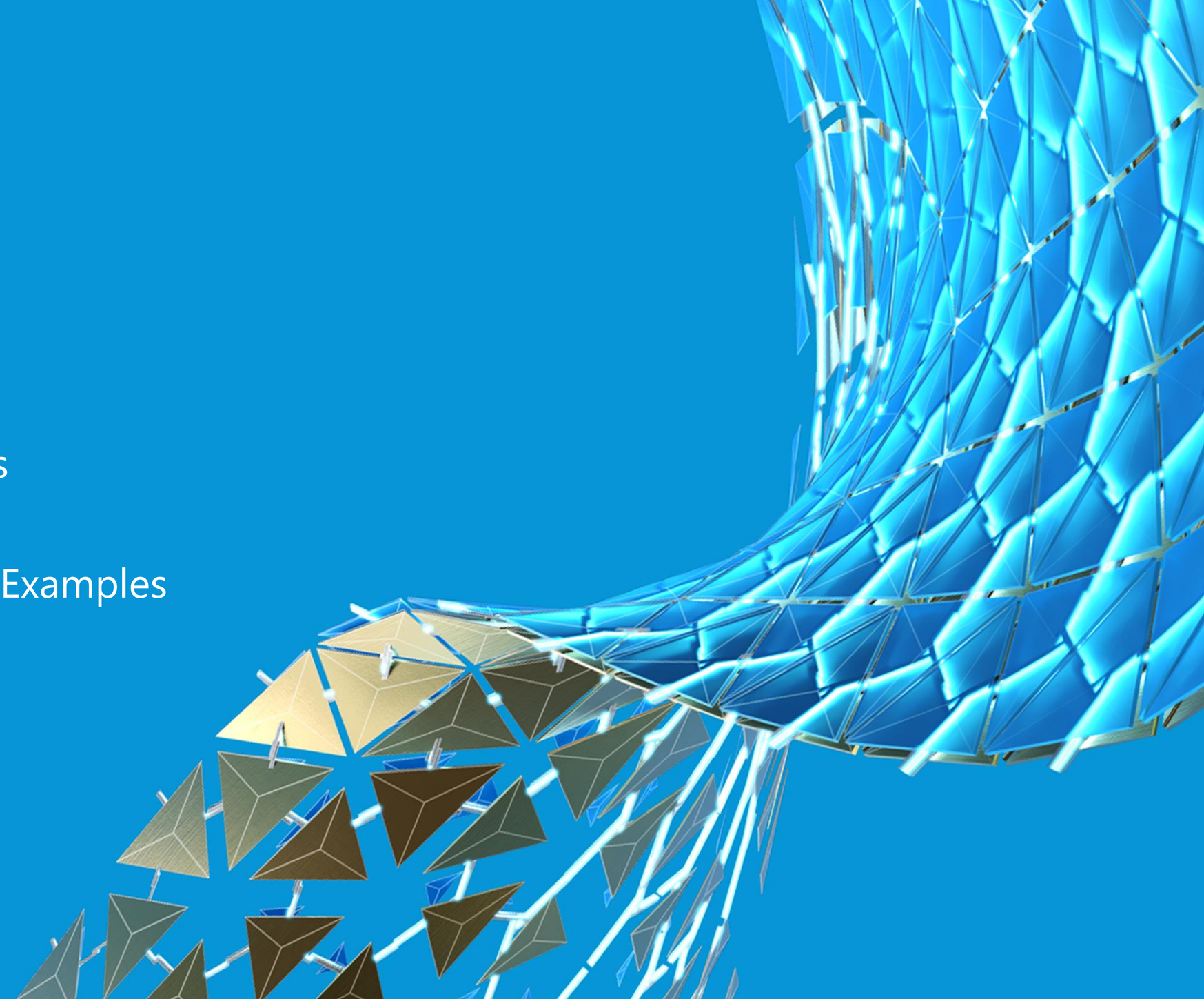
About the speaker

Brandon Tasker

- Classically Trained Animator
- Led Pipeline & Workflow processes in Animation & VFX
- Solving automotive workflow challenges using Shotgun

Agenda

- Goal of this Talk
- Shotgun Summary
- Customer Challenges
- Workflow Overview
- Advanced Workflow Examples



Goal of this Talk

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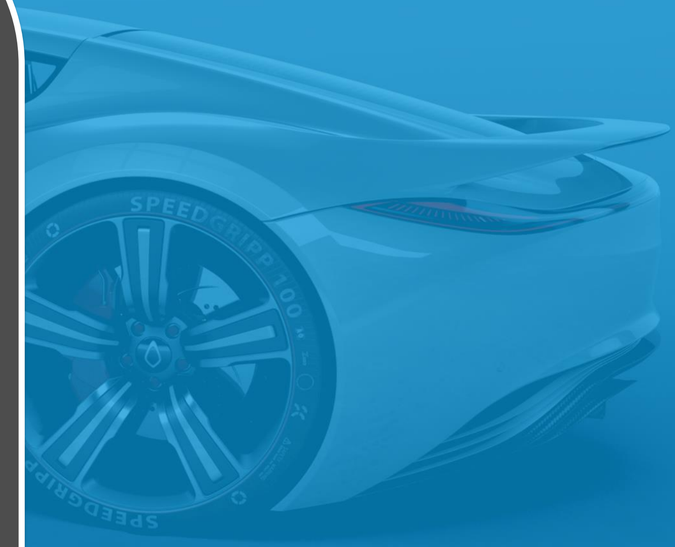
Advanced Shotgun Workflows

Go Faster

Improve Quality

Simplify Workflows



Goal of this Talk

Advanced Shotgun Workflows

Go Faster

Improve Quality

Simplify Workflows

Shotgun technology ecosystem

Examples workflows

Value of the workflows

Out of the Box vs. Customization?

- Technology Freedom
- Integrate your Workflow
- Differentiate with your process!

SHOTGUN Overview

Shotgun Basics

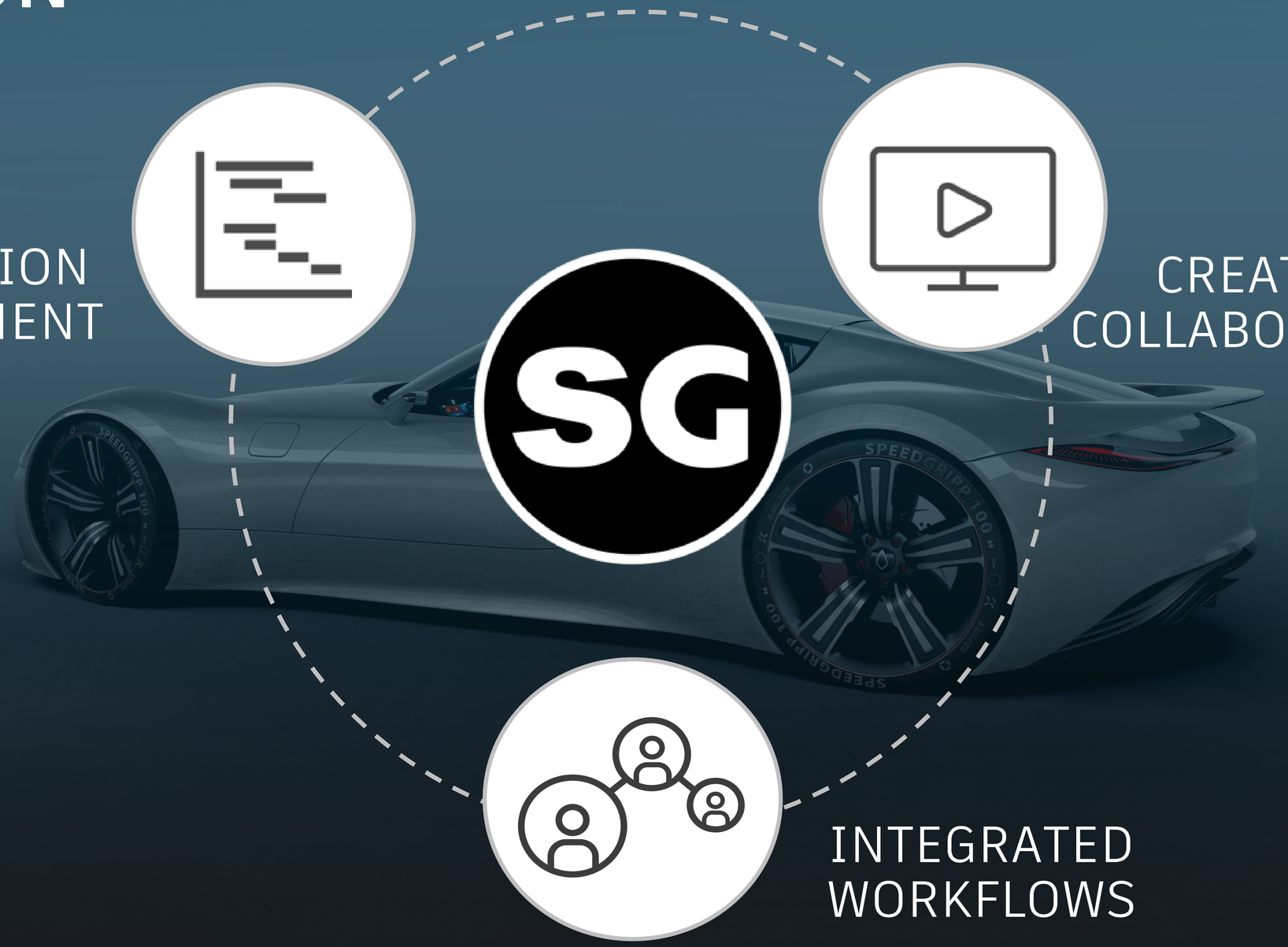
This will not intro Shotgun... but you can still listen today!

SHOTGUN
COMMUNITY

SHOTGUN

PRODUCTION MANAGEMENT

CREATIVE COLLABORATION



INTEGRATED WORKFLOWS

SHOTGUN | Solution

PRODUCTION MANAGEMENT

Manage design projects, schedules and teams

CREATIVE COLLABORATION

Capture reviews, feedback and decisions

INTEGRATED WORKFLOWS

Automatically managing the data and the process

SHOTGUN | Solution

Web Interface

Desktop Tools

API

SHOTGUN | Solution

SHOTGUN
APPLICATION

Project Managers

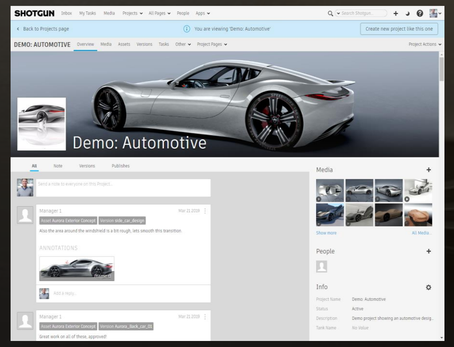
Creatives

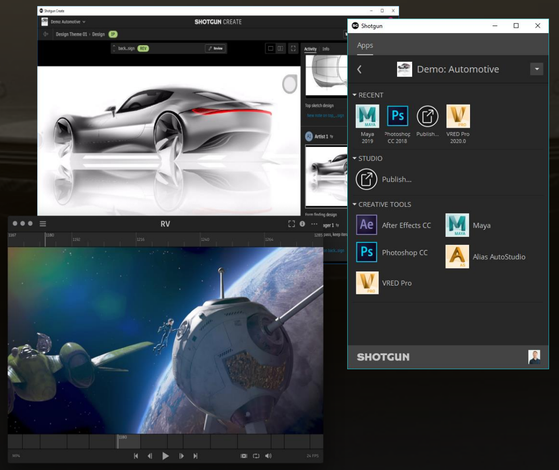
Technical

Web Interface

Desktop Tools

API





{REST}

SHOTGUN | Shotgun was built to Customize

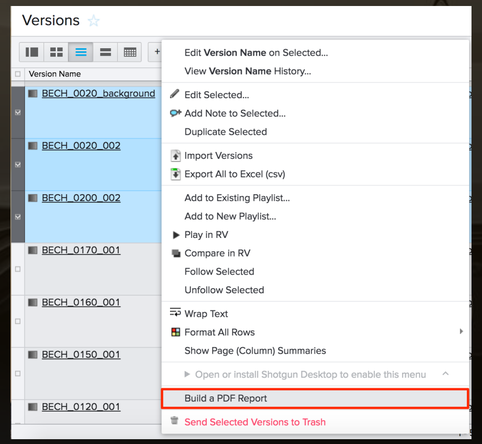
API

Right Click Items

Event Stream

Toolkit

{REST}

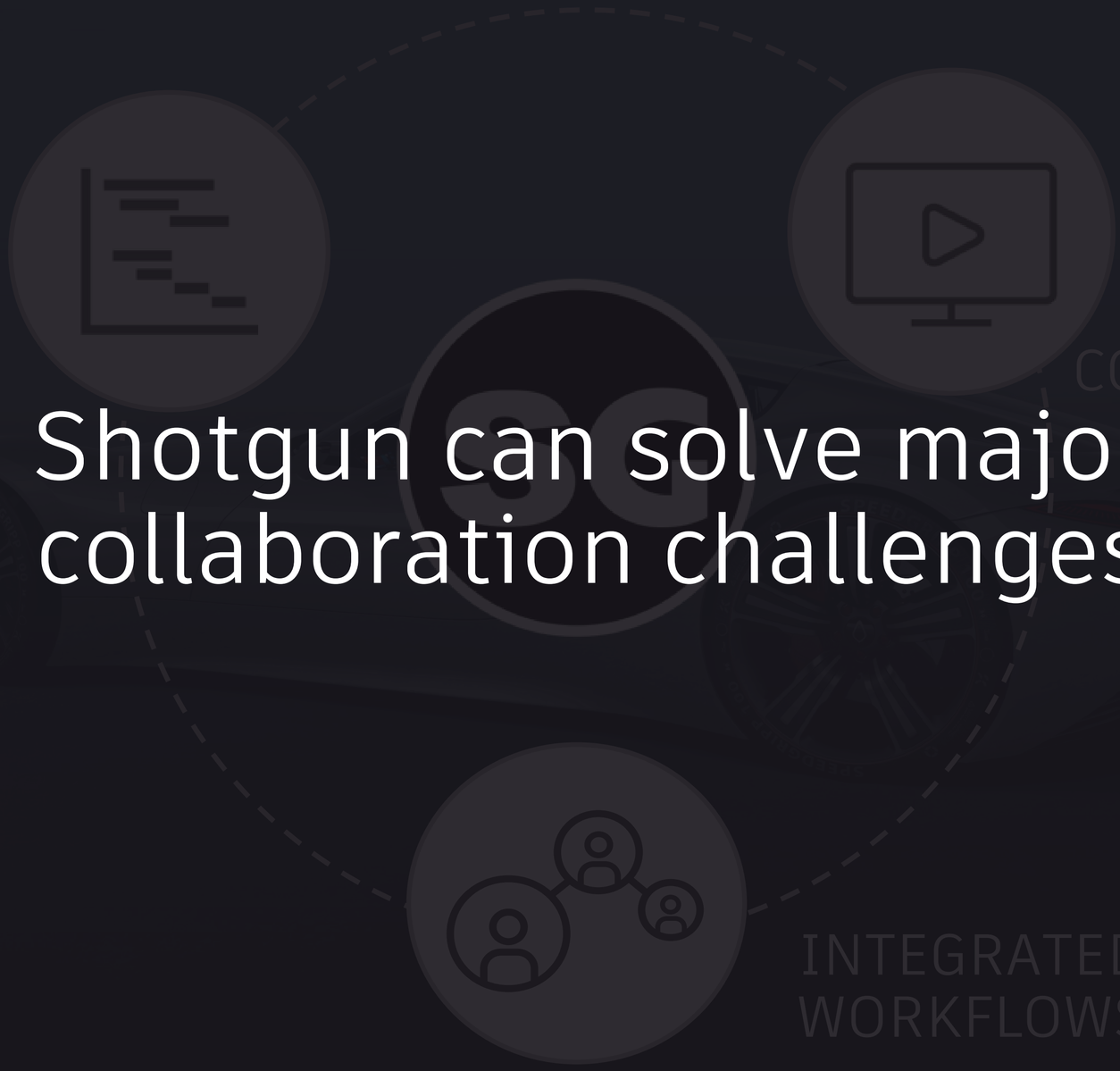


Engines

Apps

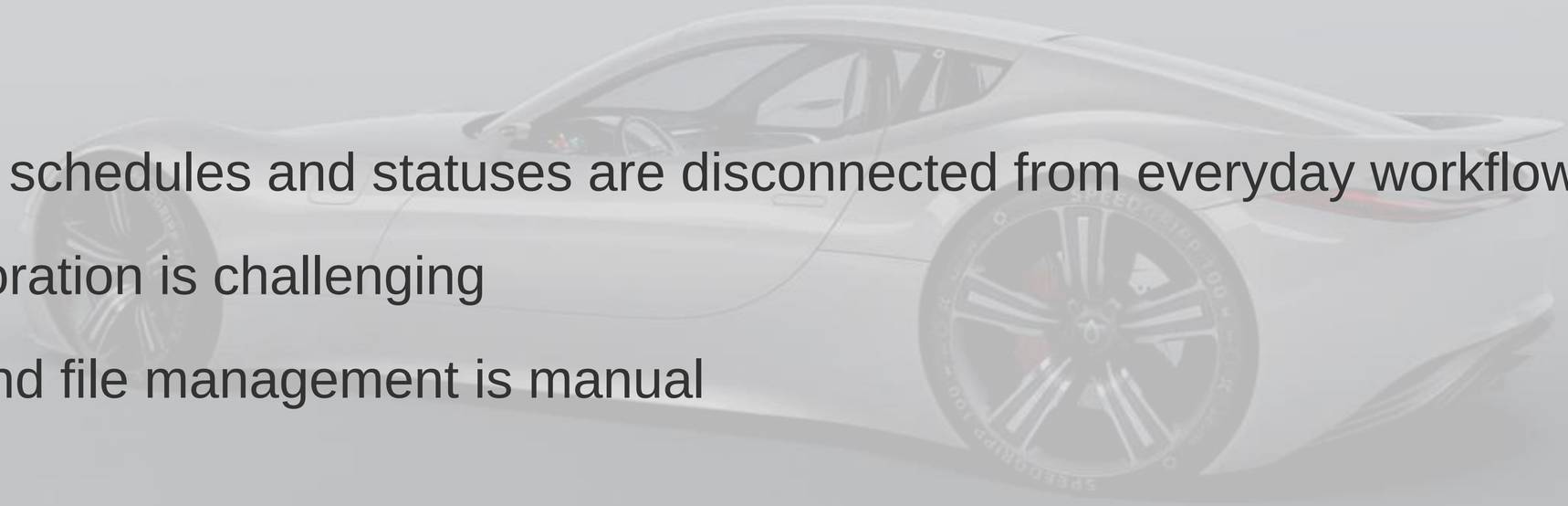
Frameworks

SHOTGUN



Shotgun can solve major collaboration challenges

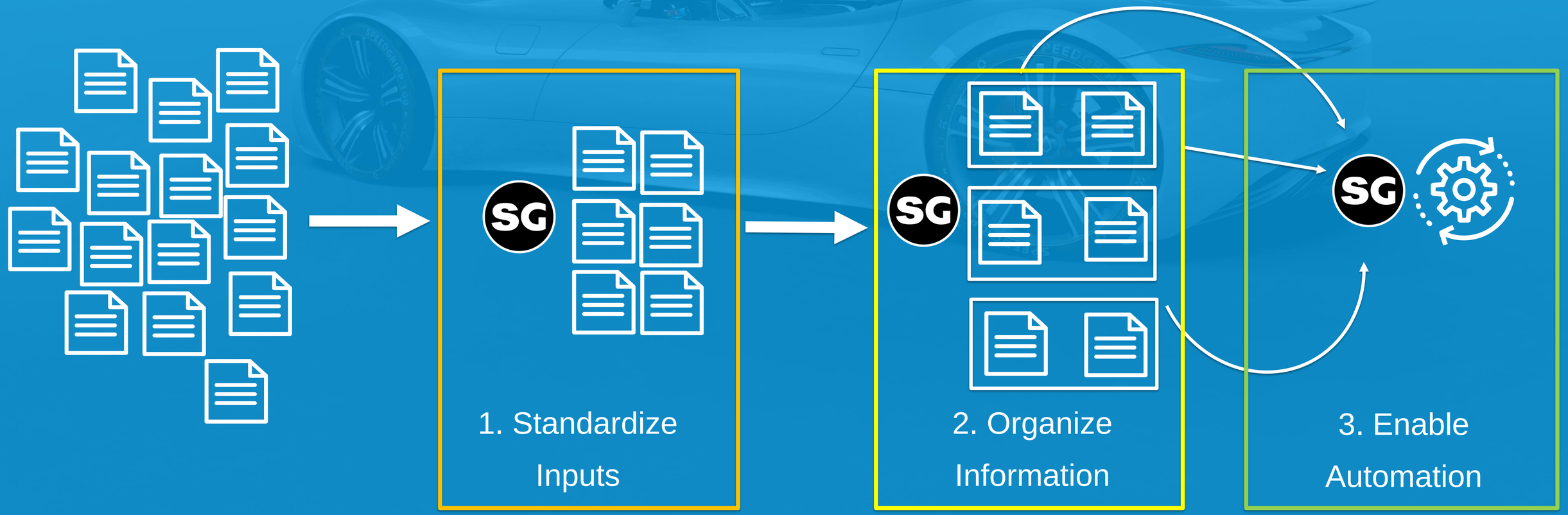
Customer Challenges



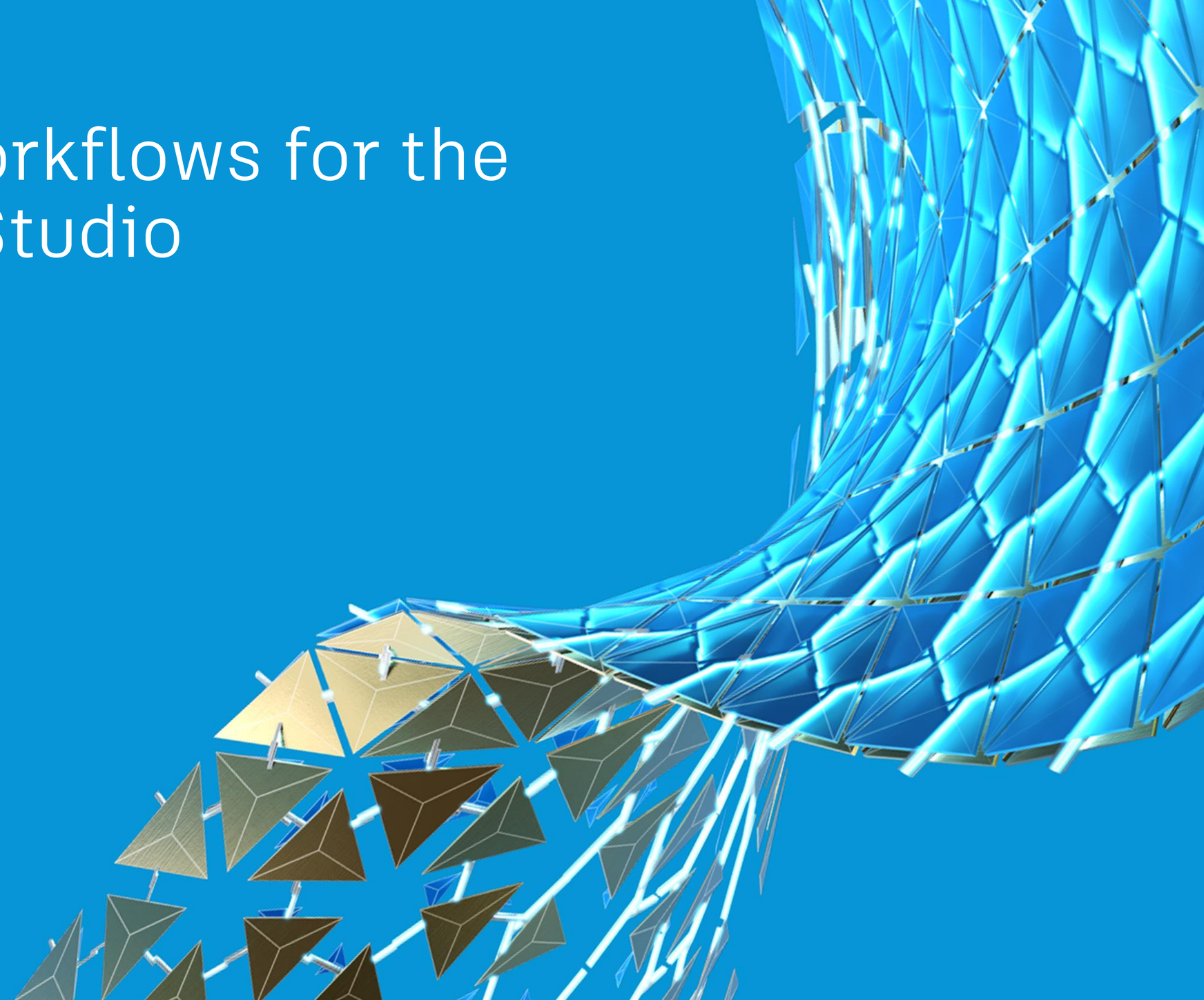
- Project schedules and statuses are disconnected from everyday workflow
- Collaboration is challenging
- Data and file management is manual

Solution

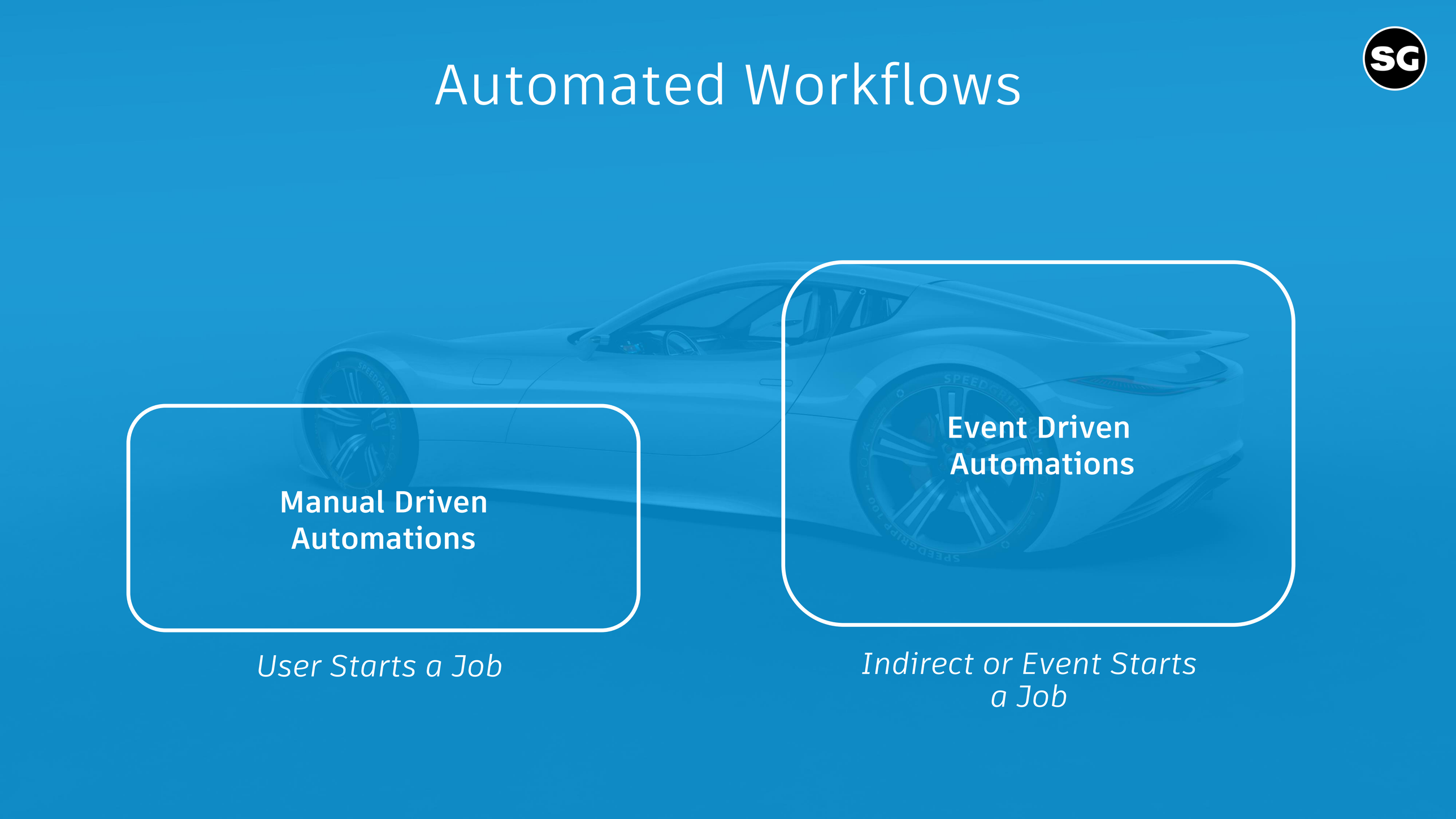
“Use Shotgun to Organize the Chaos & Enable Automation”



Advanced Workflows for the Automotive Studio



Automated Workflows



Manual Driven Automations

User Starts a Job

Event Driven Automations

Indirect or Event Starts a Job

How Can You Do this?

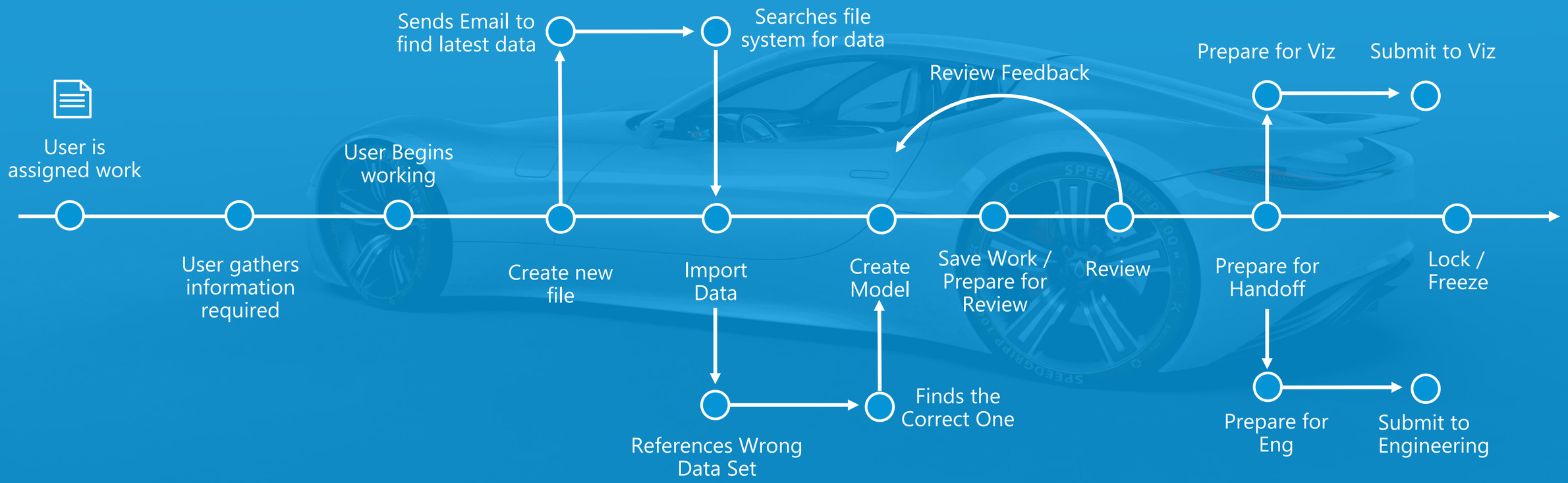
Hooks!

You are going to need to code…

Don’t be scared!

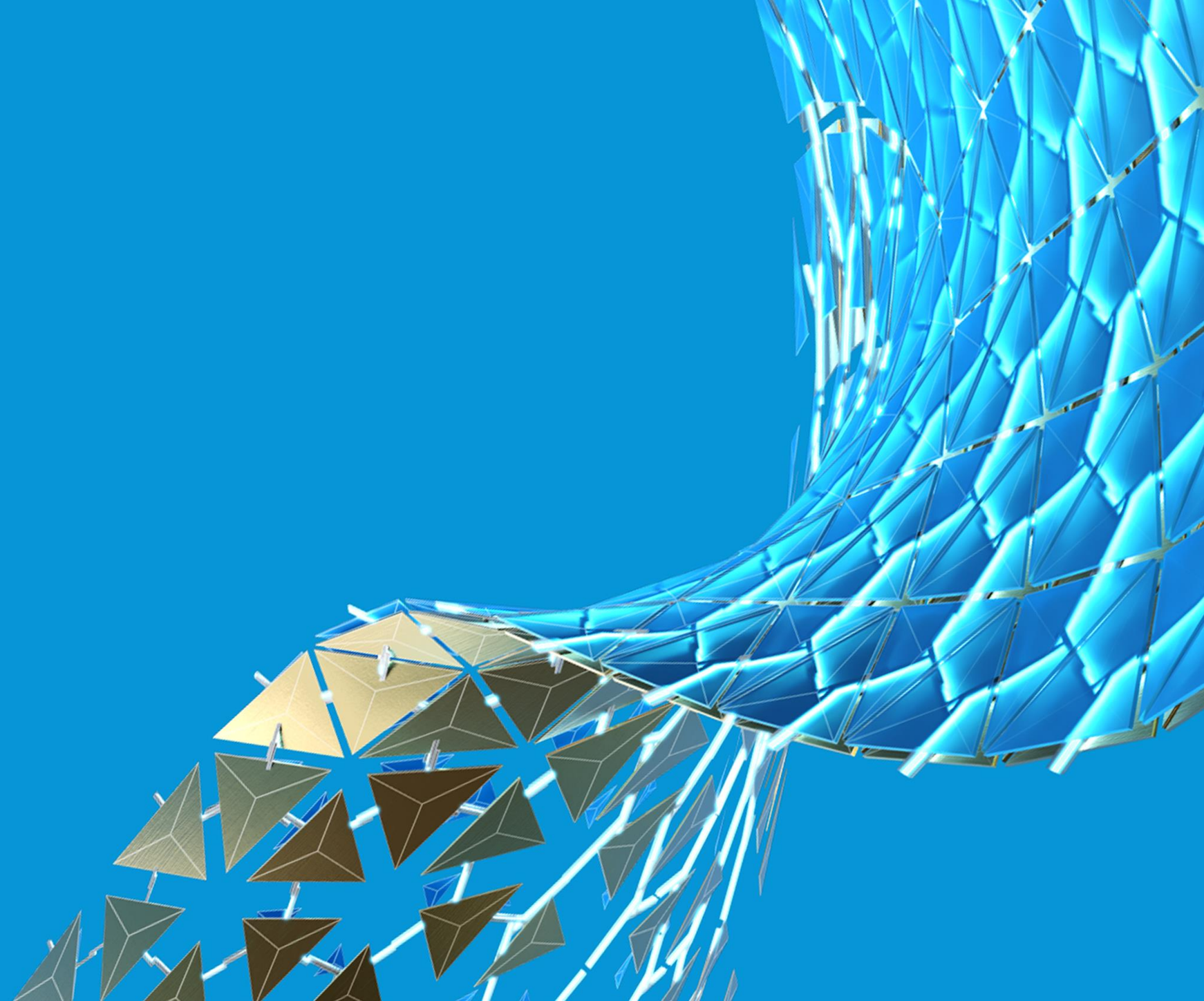
```
# agreement to the Shotgun Pipeline Toolkit Source Code License. All rights
# not expressly granted therein are reserved by Shotgun Software Inc.

import os
import pprint
import traceback

import sgtk
from sgtk.util.filesystem import copy_file, ensure_folder_exists

HookBaseClass = sgtk.get_hook_baseclass()


class BasicFilePublishPlugin(HookBaseClass):
    """

    ############################################################################
    # standard publish plugin properties

    @property
    def icon(self):
        """
            Path to an png icon on disk
            """

        # look for icon one level up from this hook's folder in "icons" folder
        return os.path.join(self.disk_location, "icons", "publish.png")

    @property
    def name(self):
        """
            One line display name describing the plugin
            """
        return "Publish to Shotgun"

    @property
    def description(self):

    @property
    def settings(self):
```

Simple Model Workflow

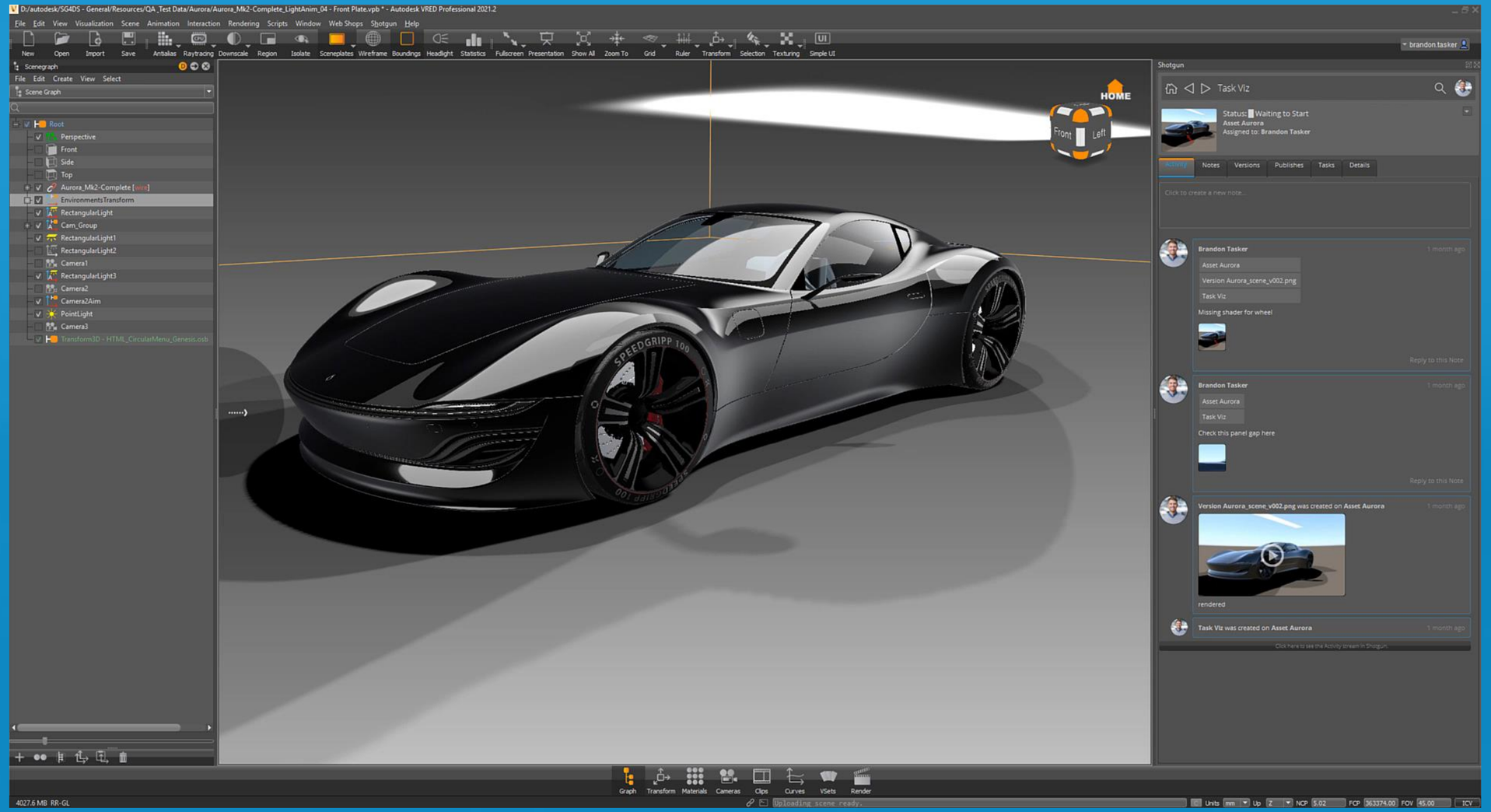


Simple Model Workflow

New File



New File | Basic



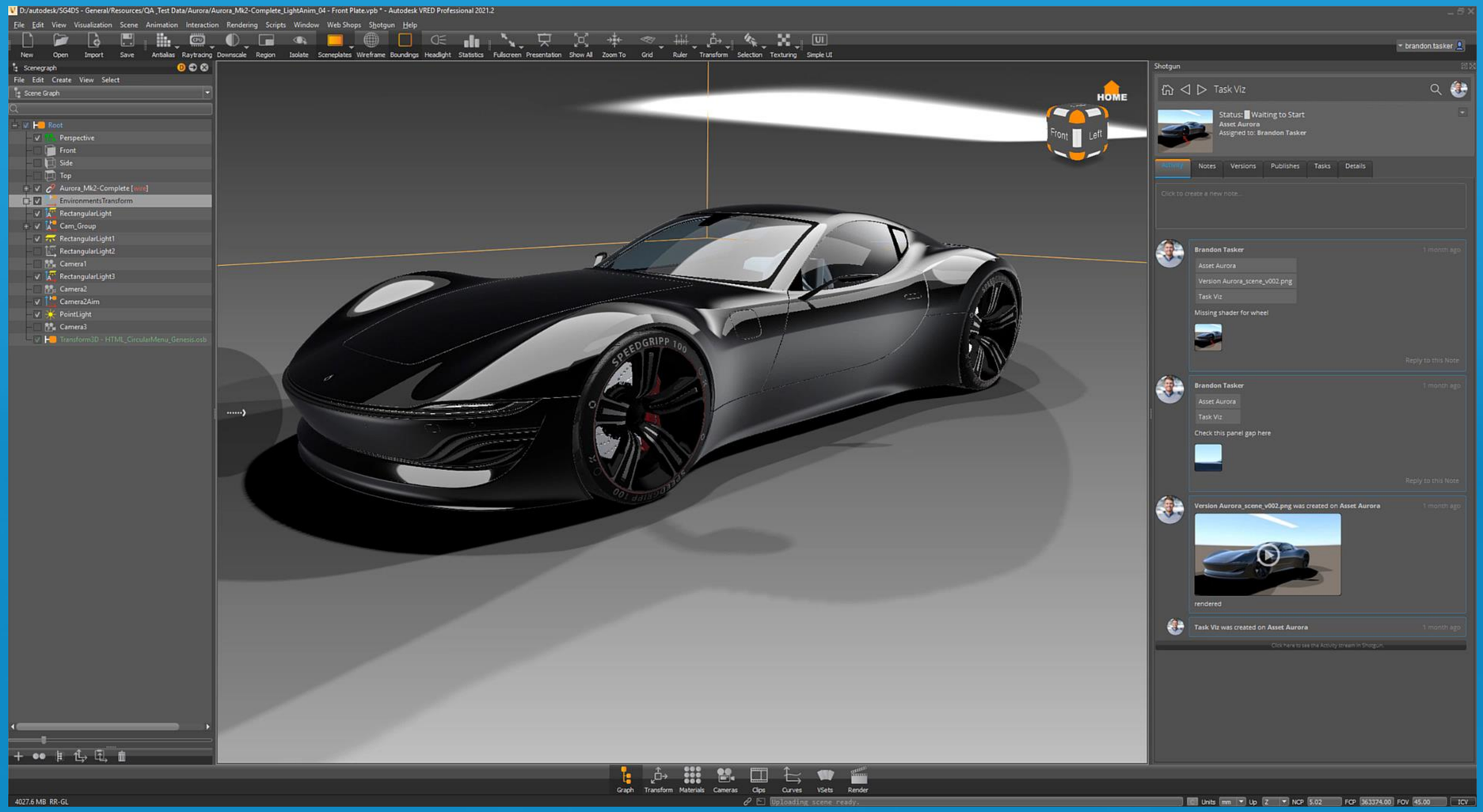
[Watch Video Here]

New File | Advanced Menu

When I Click “New File” also do…

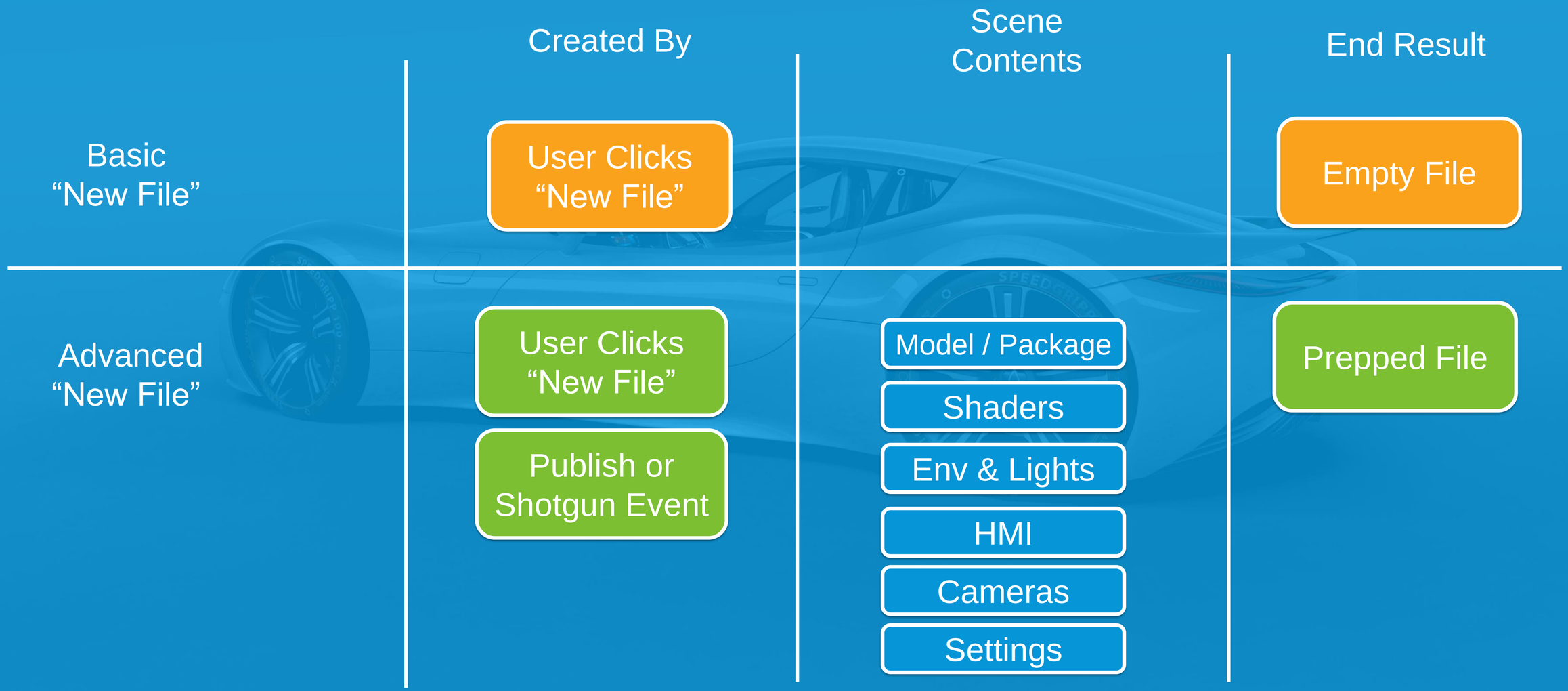
- Import Latest Model
- Import Environment & Studio Lighting
- Import and Map Basic HMI
- Setup Hierarchy / Layers
- Import Studio Approved Shaders
- Apply Approved Shaders
- Set Global Settings

New File | Advanced

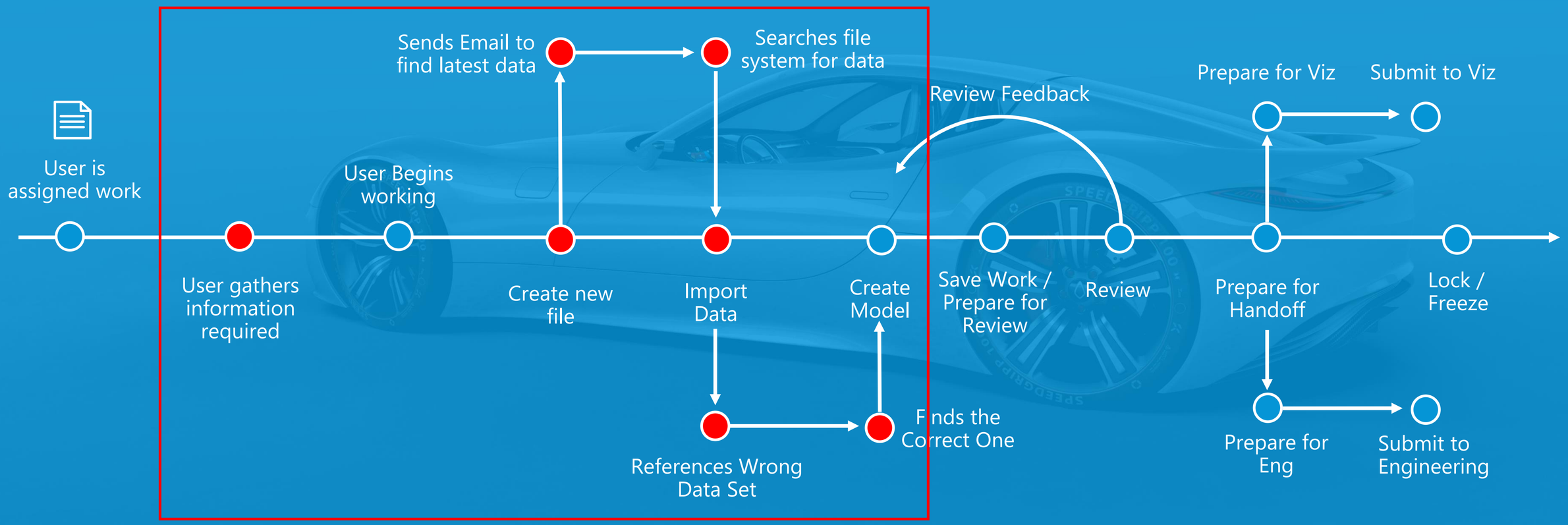


[Watch Video Here]

New File | Overview

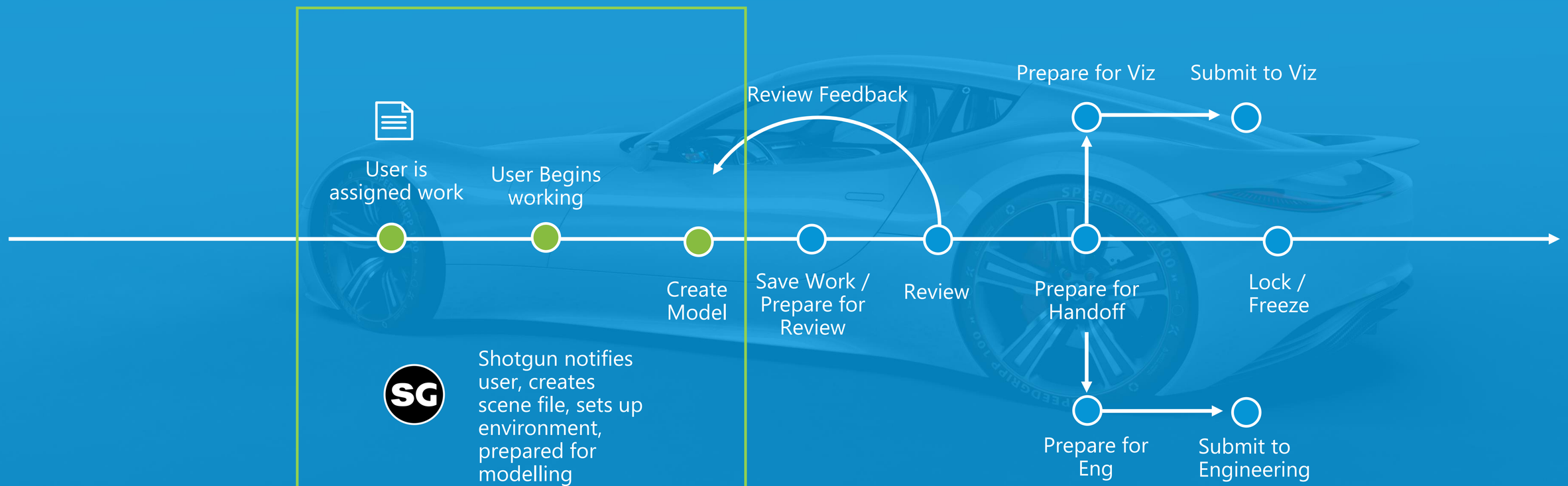


Simple Model Workflow



9 Steps

Simple Model Workflow



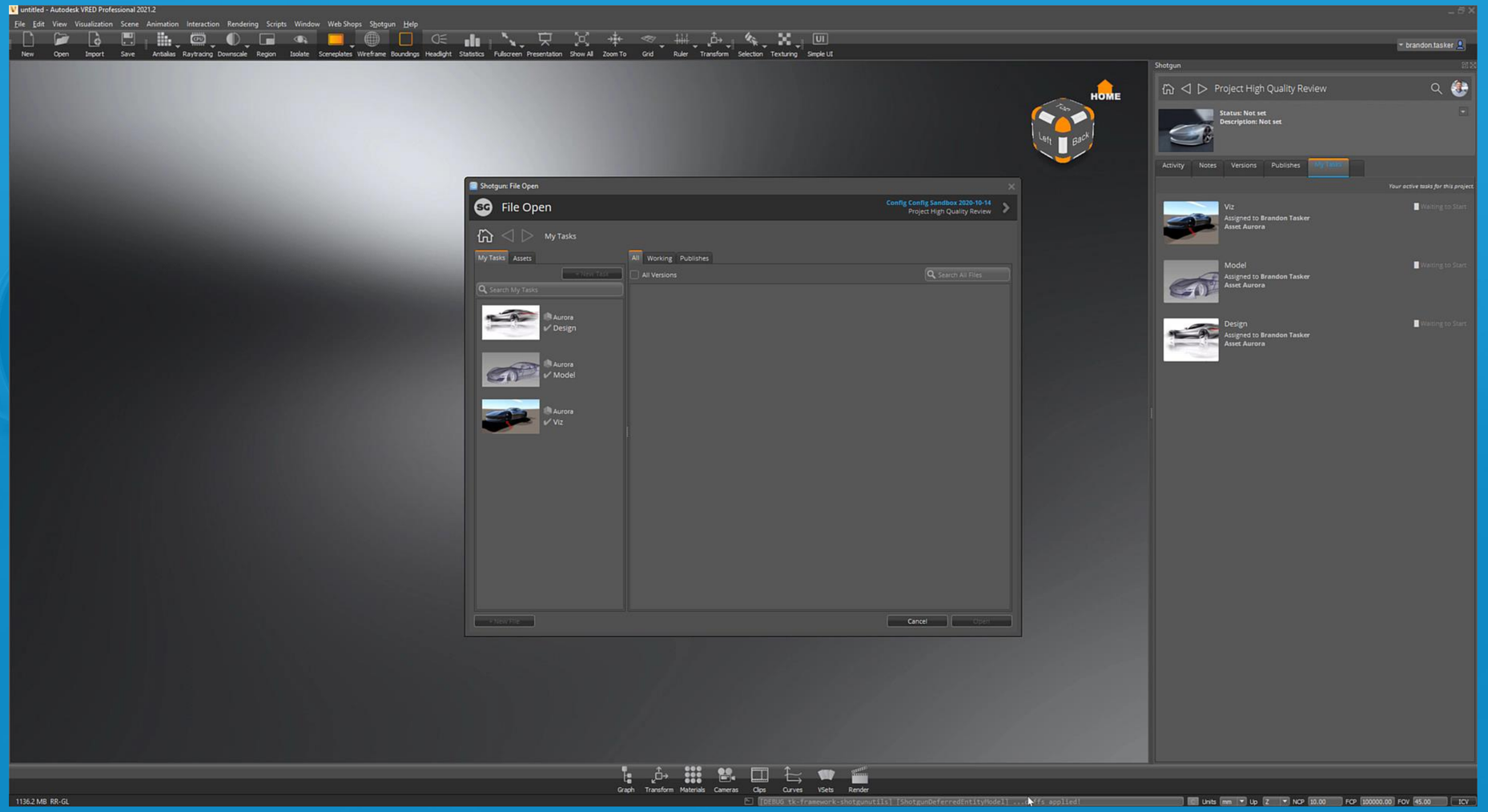
3 Steps

New File | Summary

- Saves the Users time!
- Standardizes workflows to ensure consistency
- Increases production iteration speed

Opening & Saving

Opening & Saving | Basic



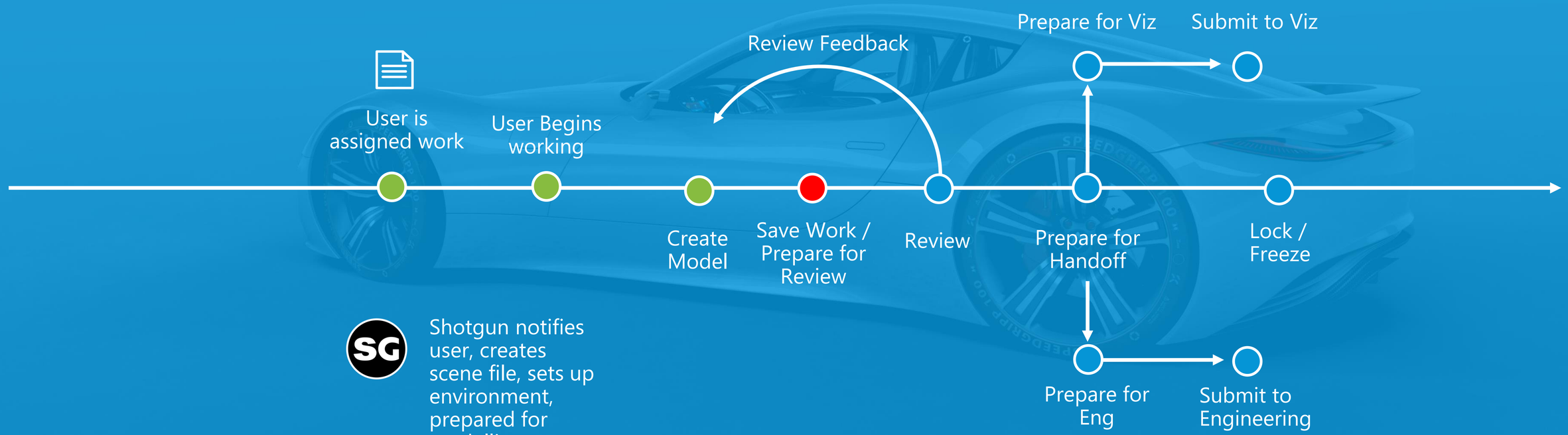
Watch Video Here

Opening & Saving | Advanced Menu

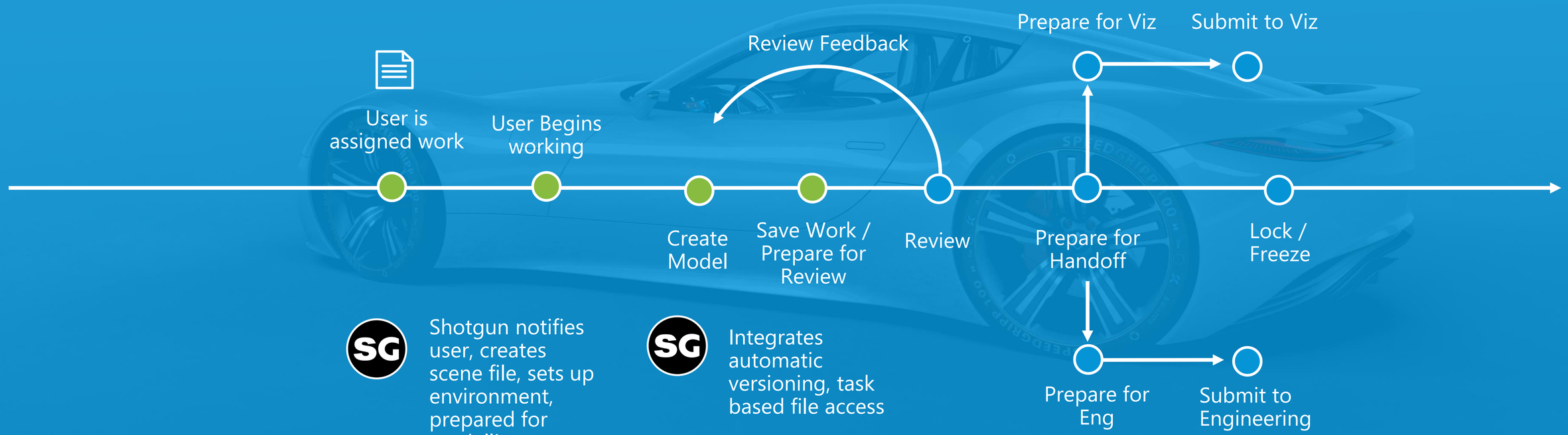
When I Click “Open” or “Save” also do…

- References are up to date?
- Automatically updated
- Show a dialog for User input
- Set Application Settings
- File Analysis & Meta-data
- Global Sharing

Simple Model Workflow



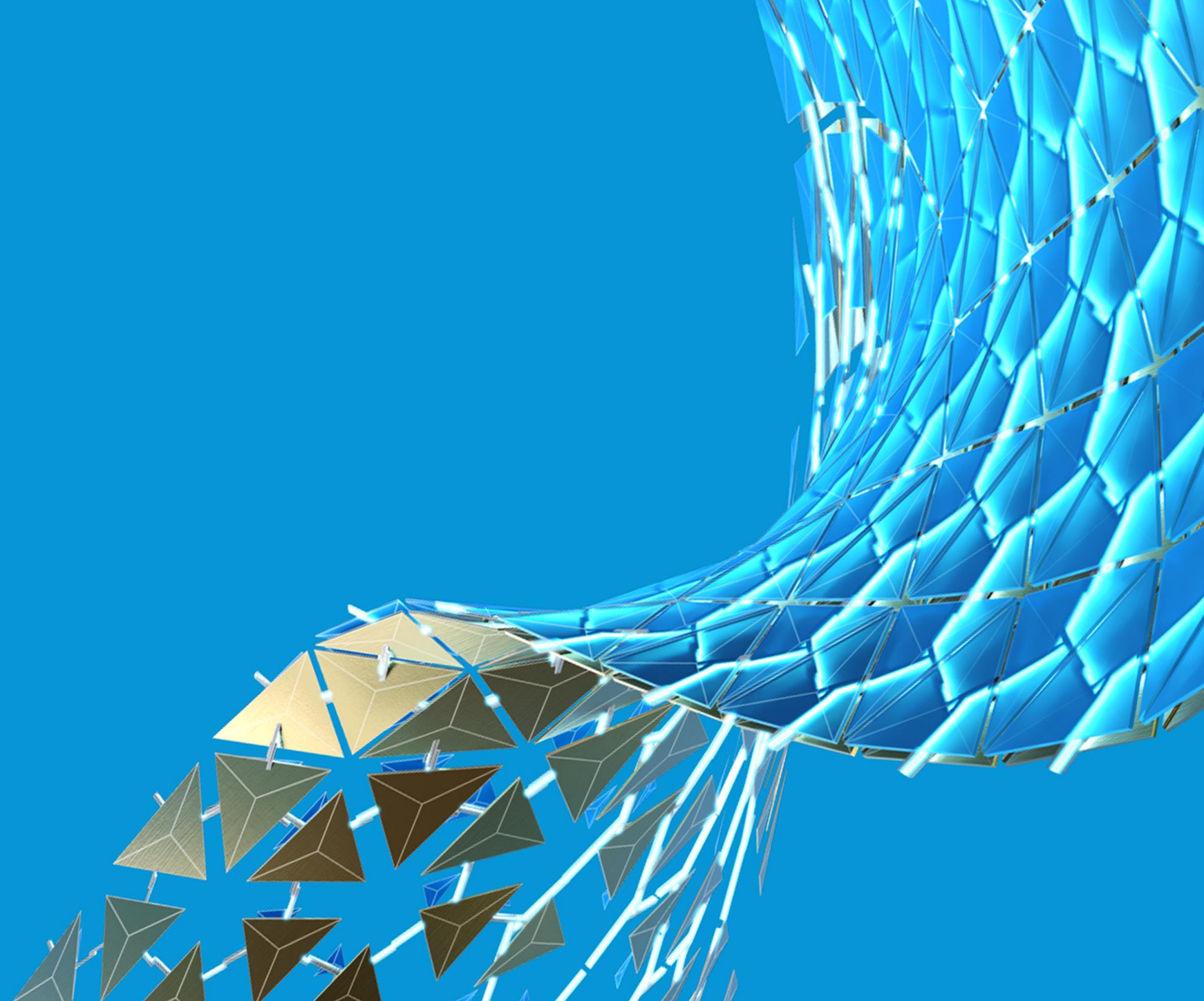
Simple Model Workflow



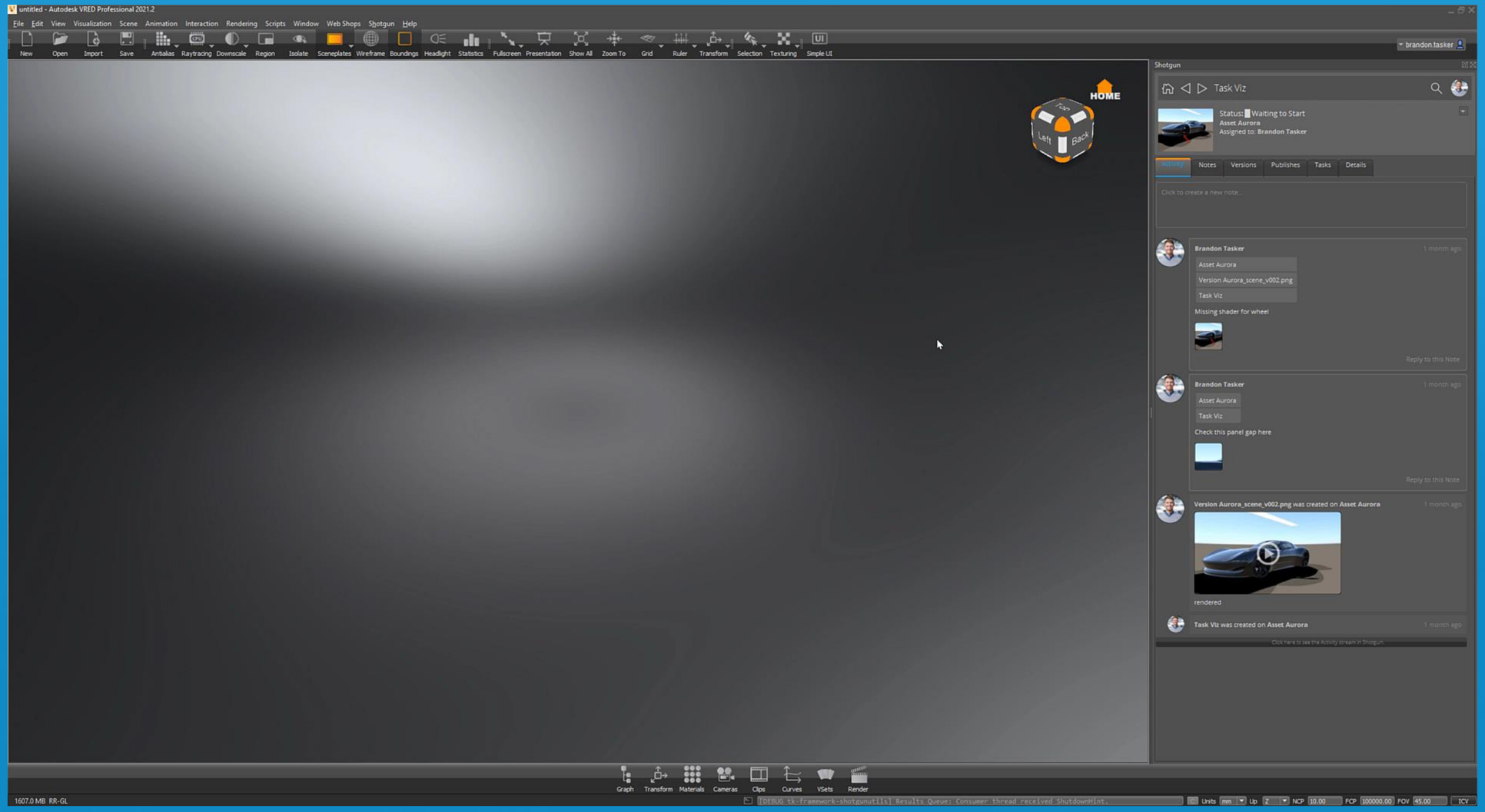
Opening & Saving | Summary

- Saves the Users time!
- Standardizes workflows to ensure consistency
- Increases production iteration speed

Loading

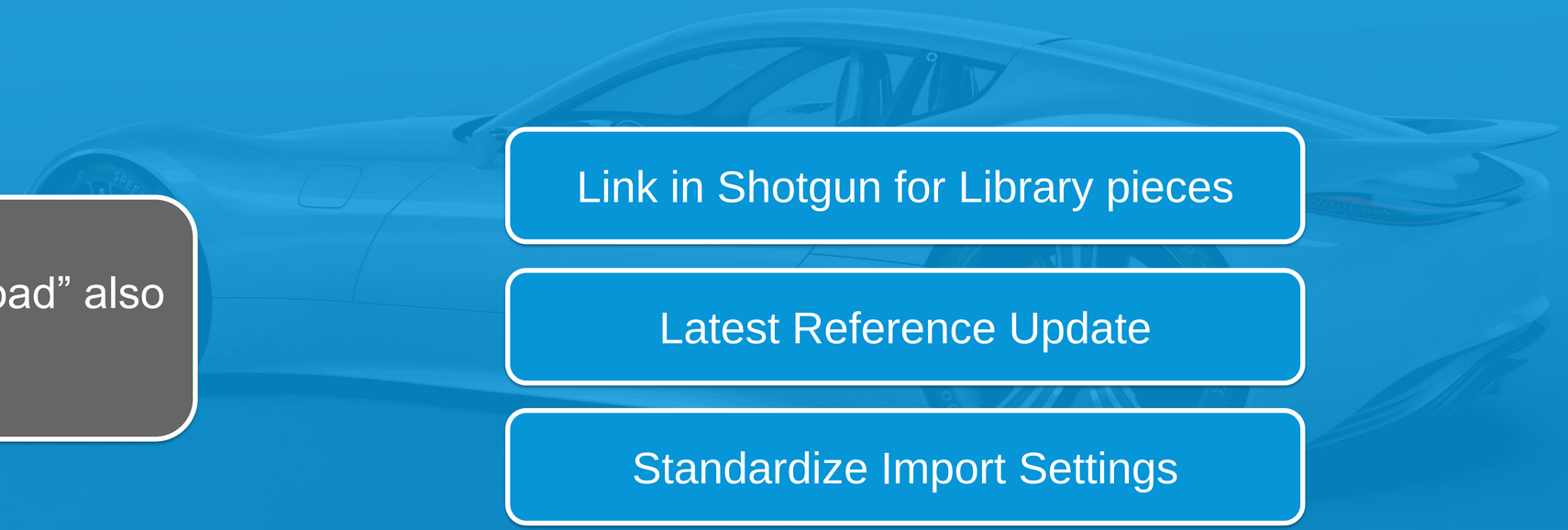


Loading | Basic



[Watch Video Here]

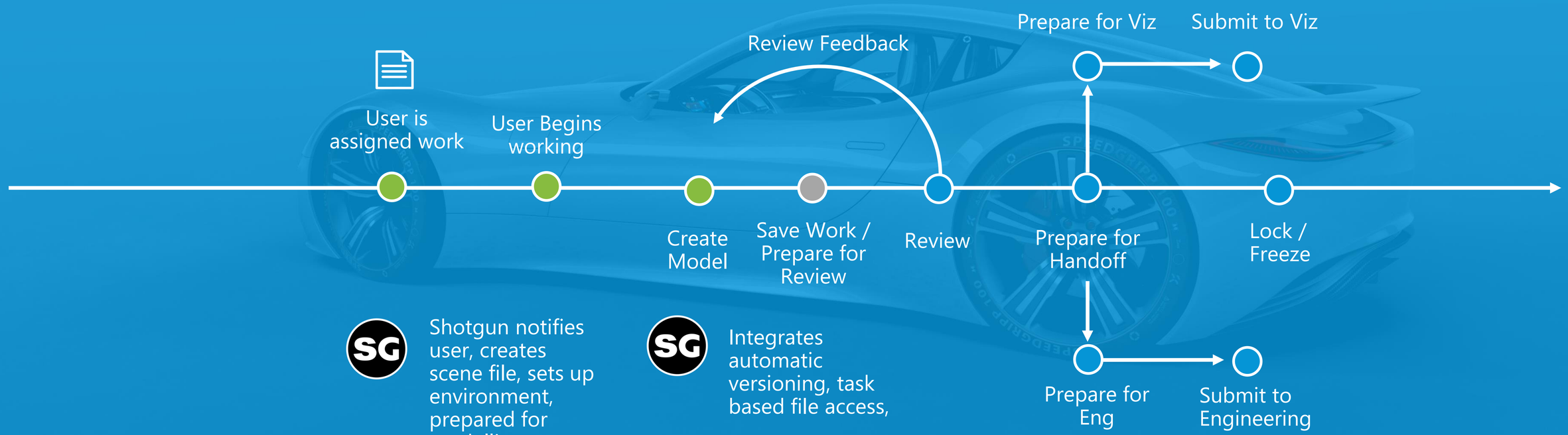
Load | Advanced Menu



When I Click “Load” also do…

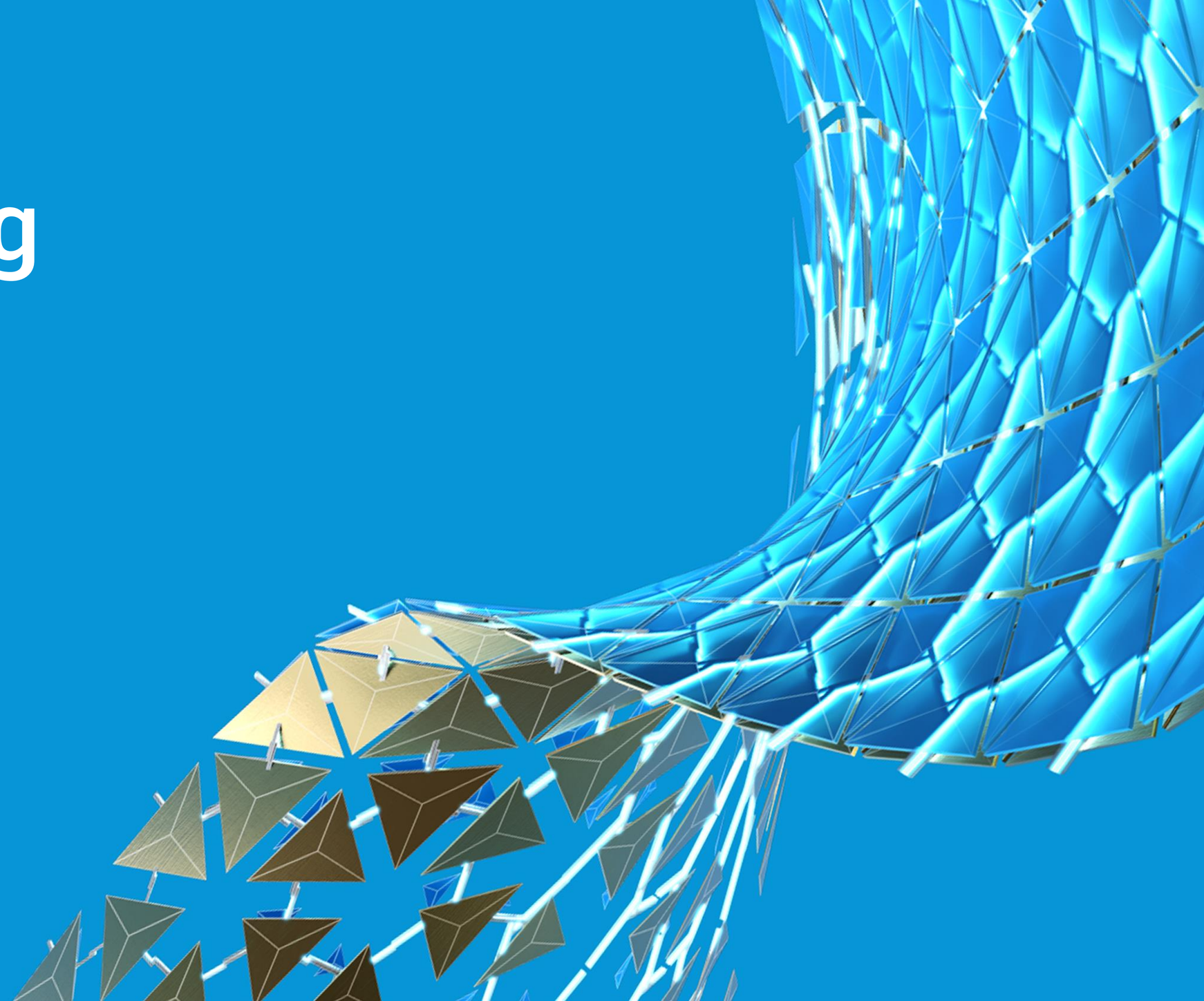
- Link in Shotgun for Library pieces
- Latest Reference Update
- Standardize Import Settings

Simple Model Workflow

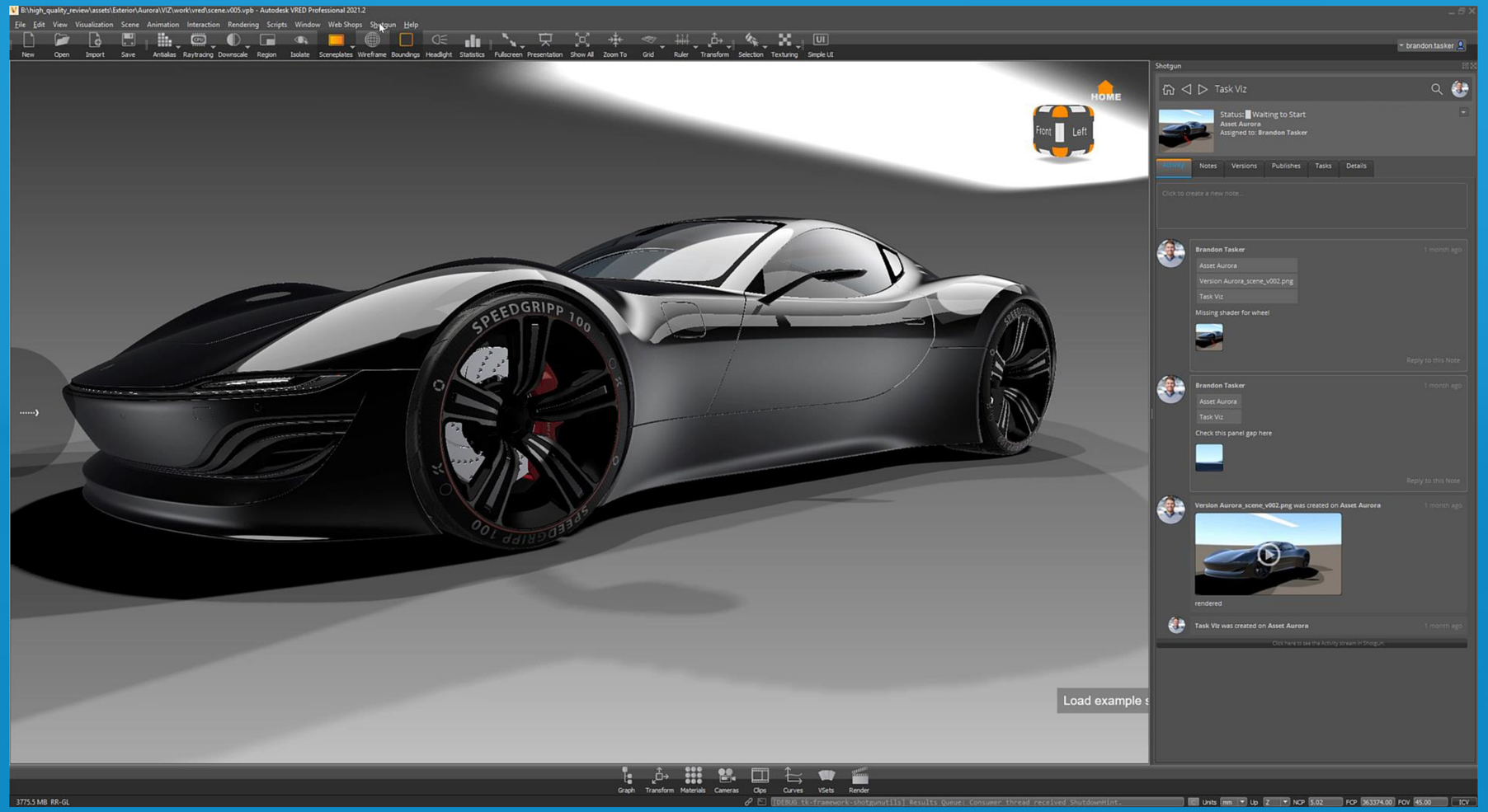


Simple Model Workflow

Publishing



Publishing | Basic



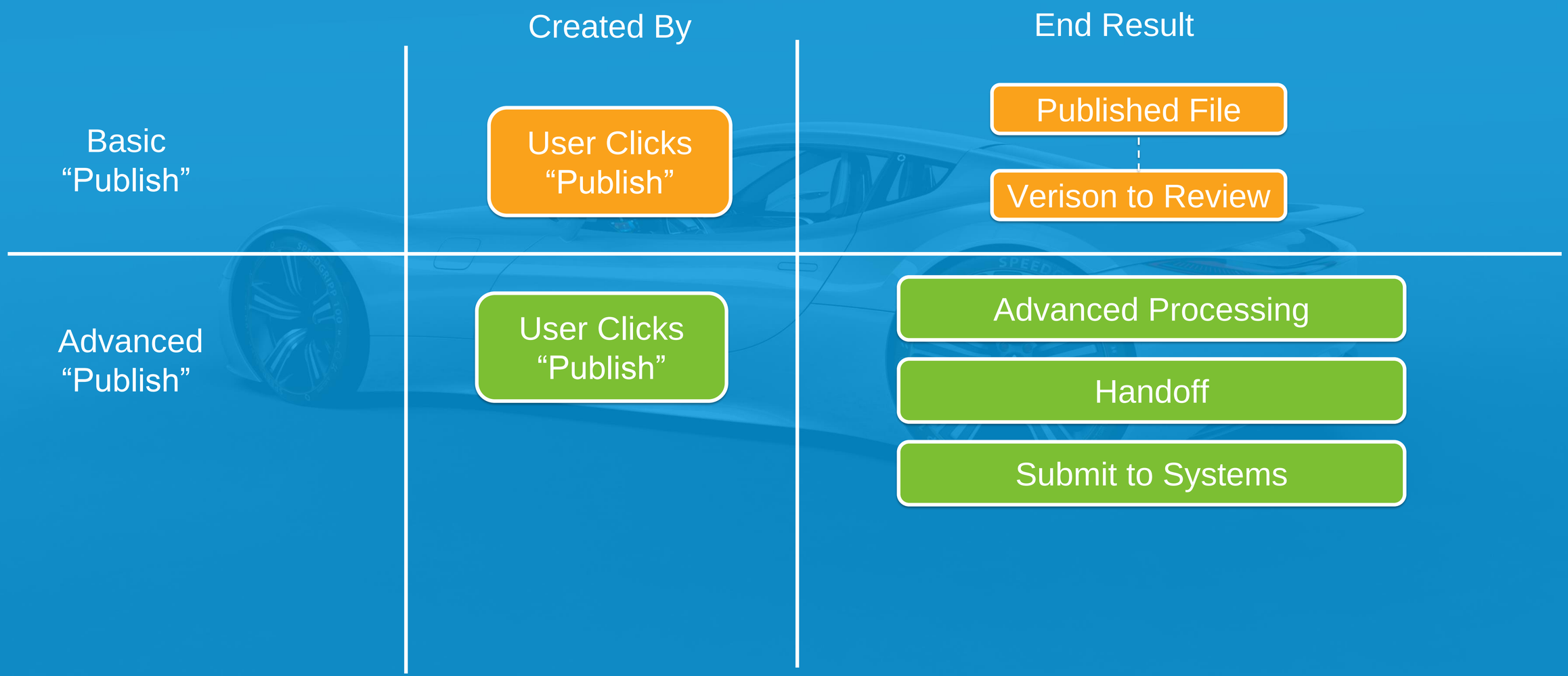
Watch Video Here

Publishing | Menu

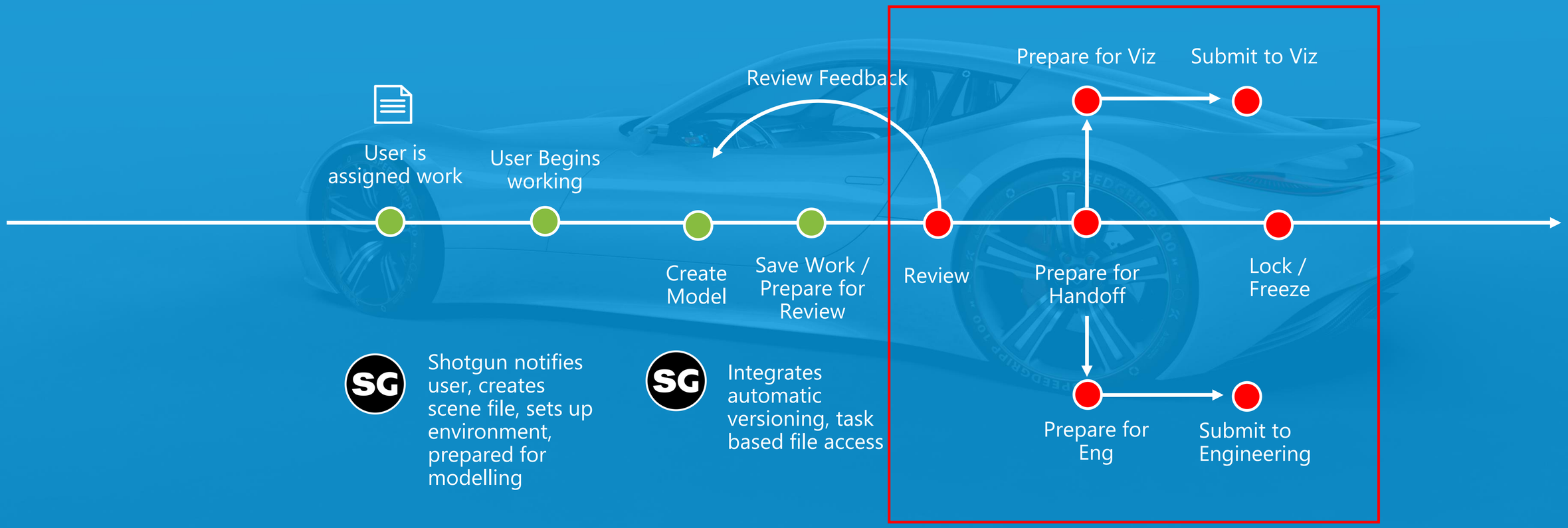
When I Click “Publish” also do…

- Render / Turntable
- Simulation
- Put into Engineering PDM system
- Cleanup File
- Prepare for Review
- Handoff to Another Team
- Prepare for Paint Over
- Submit to Computing Cluster

Publishing | Overview

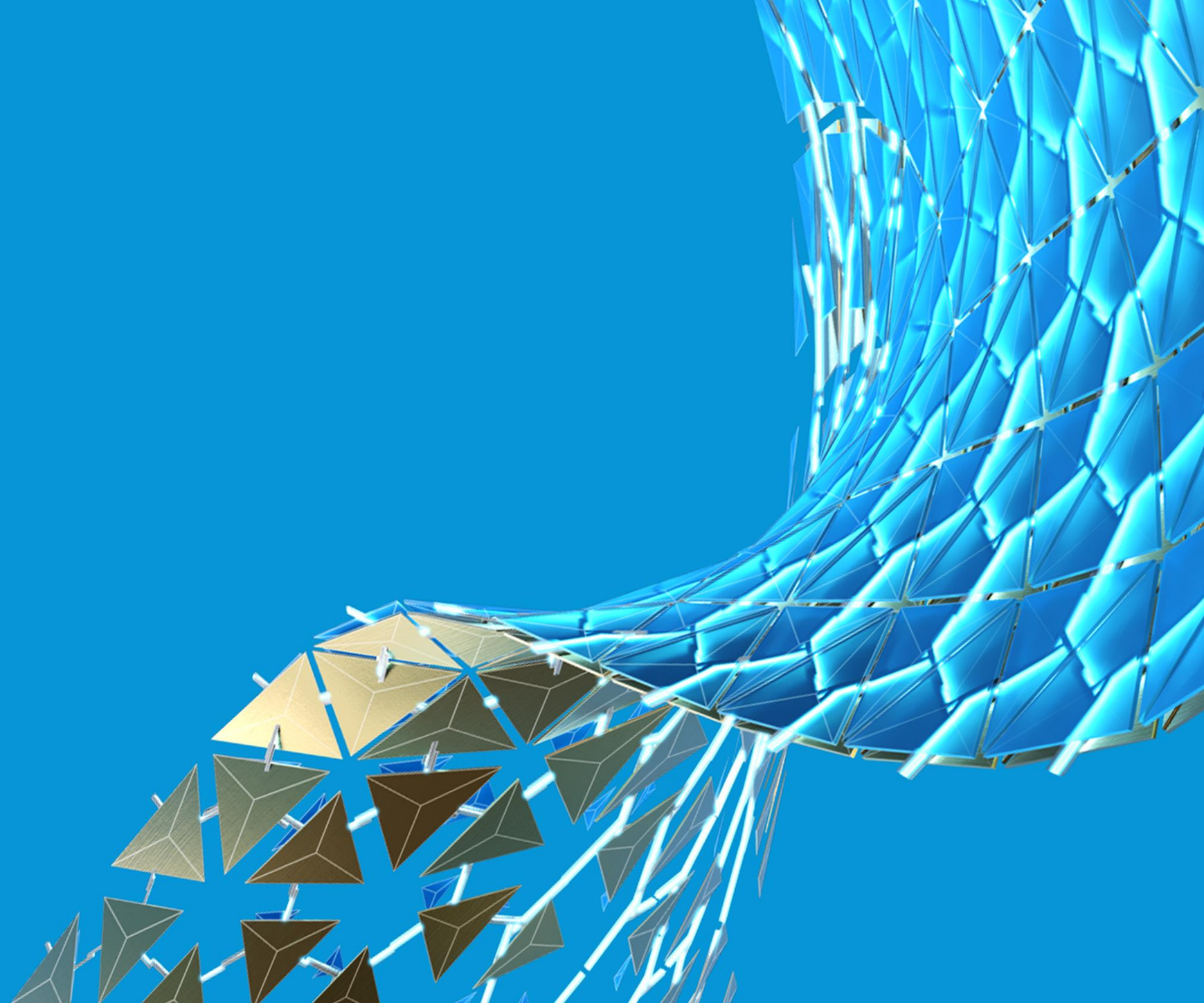


Simple Model Workflow

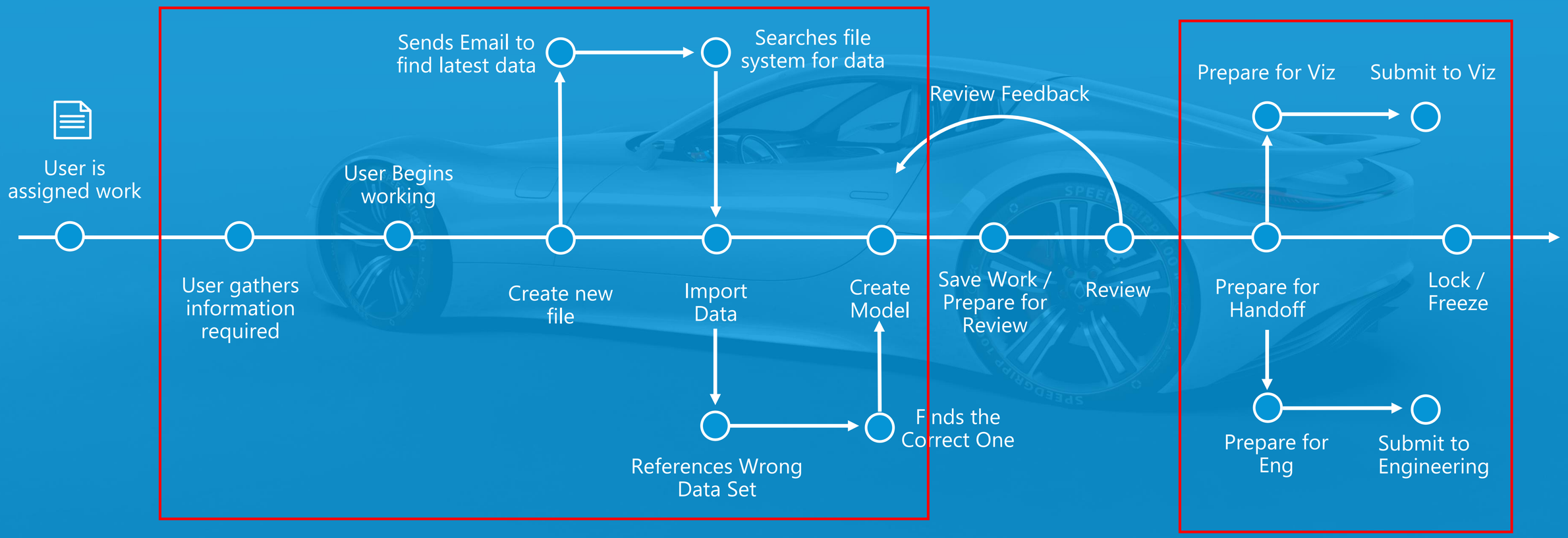


Simple Model Workflow

Vision

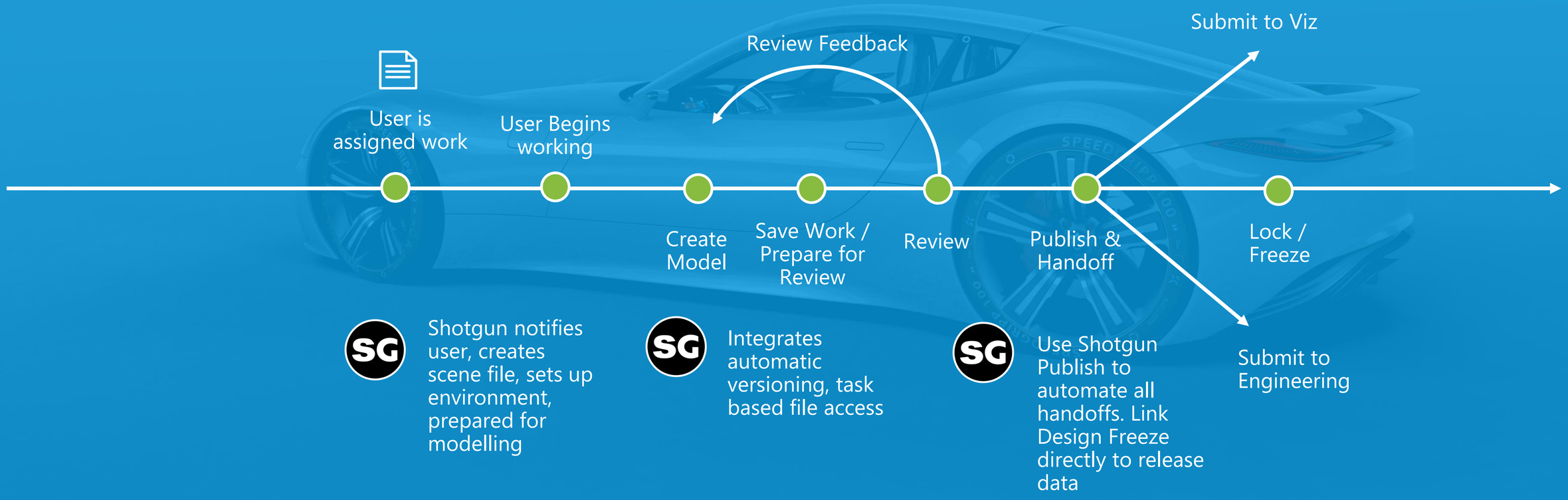


Simple Model Workflow



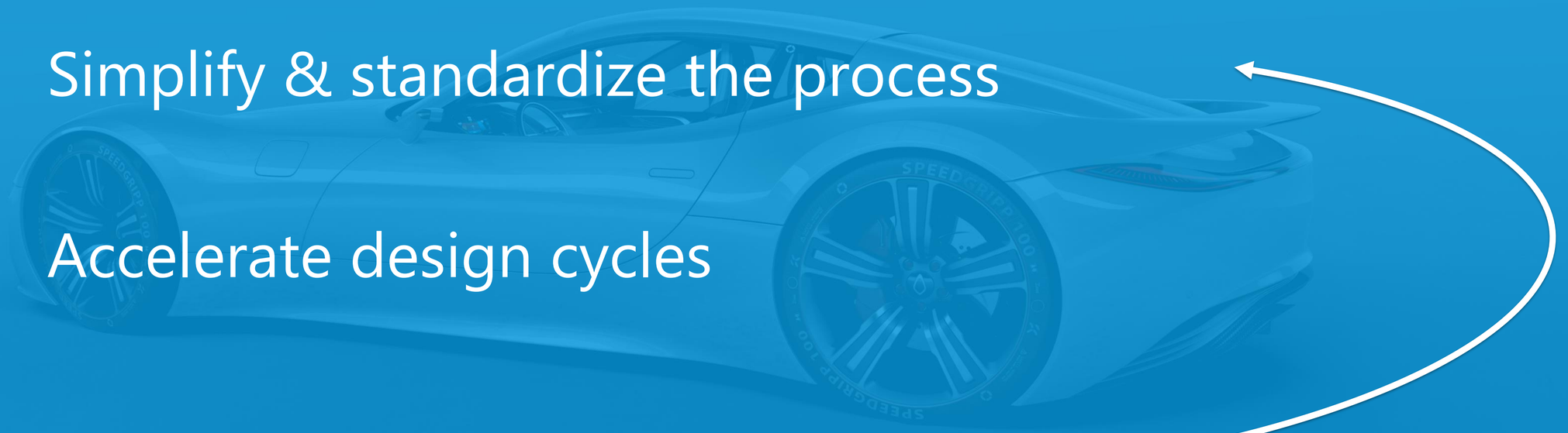
18 Steps

Simple Model Workflow



7 Steps

Simple Model Workflow Summary

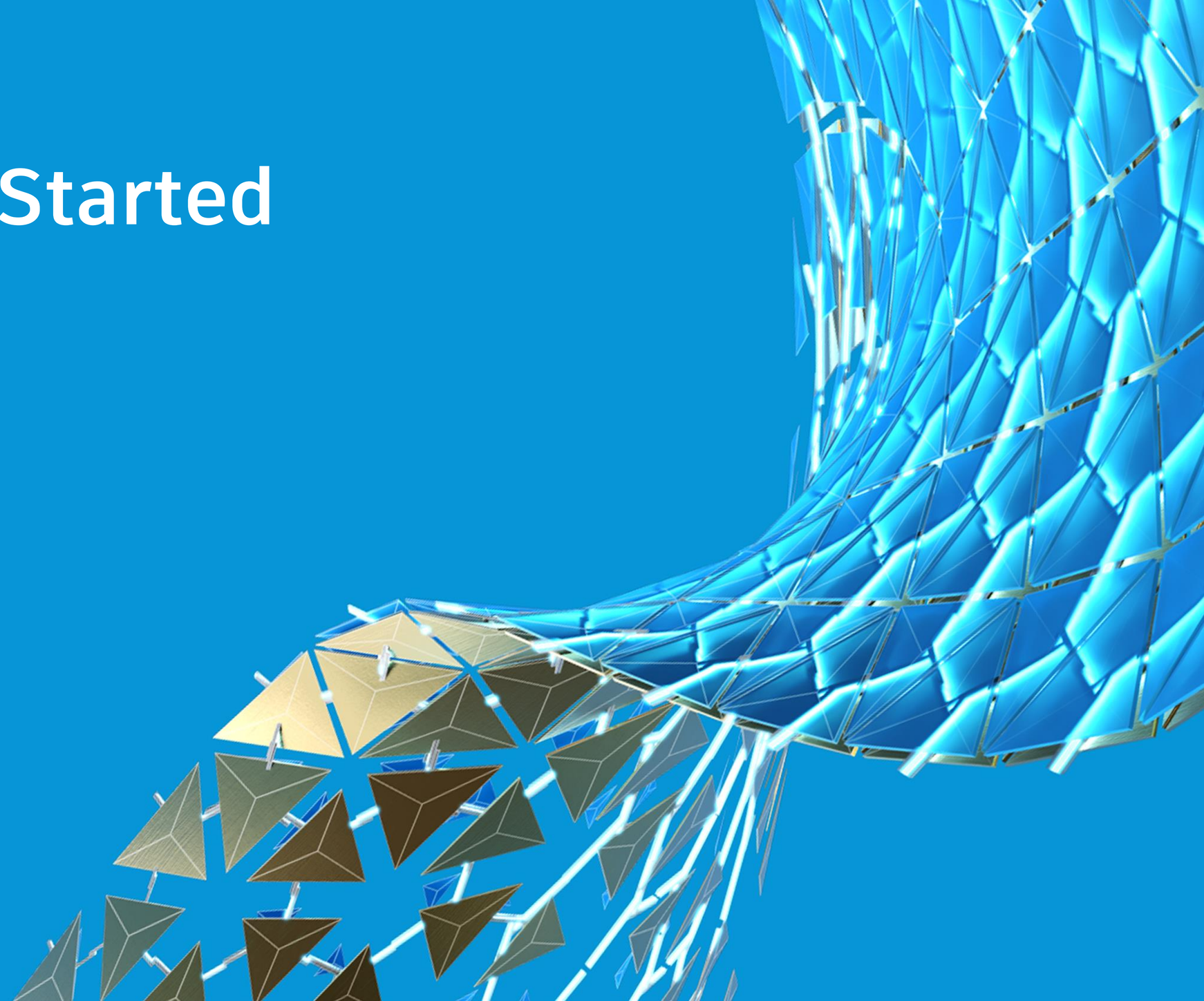


Simplify & standardize the process

Accelerate design cycles

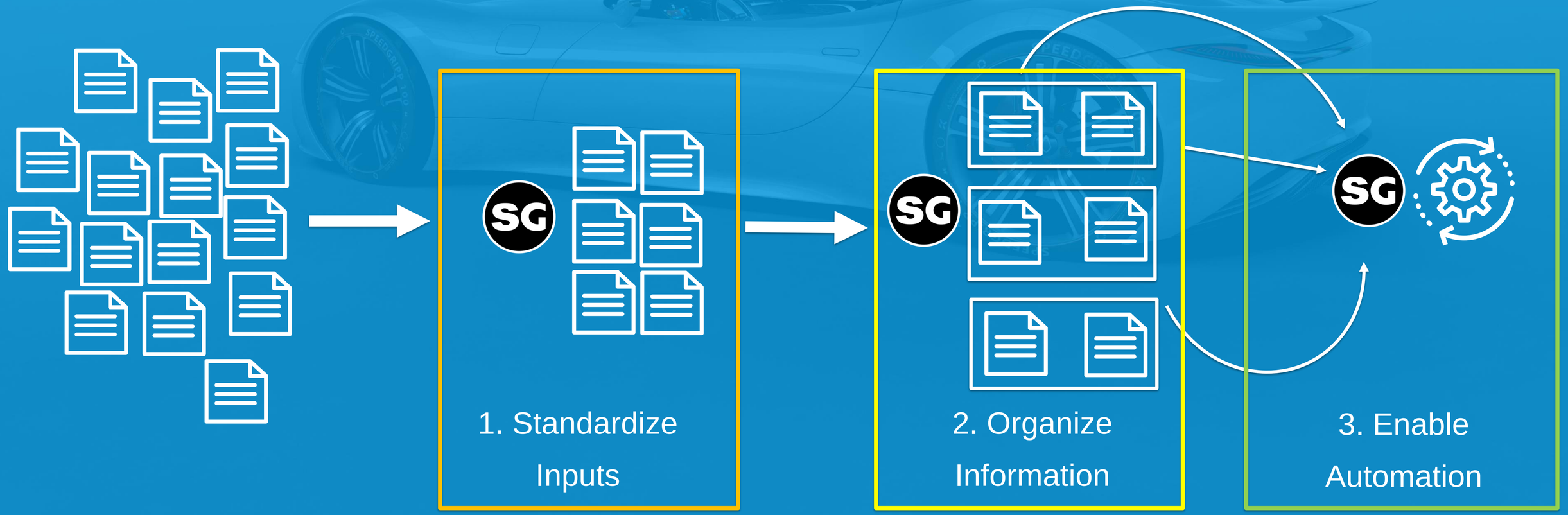
Automate tasks

How to Get Started

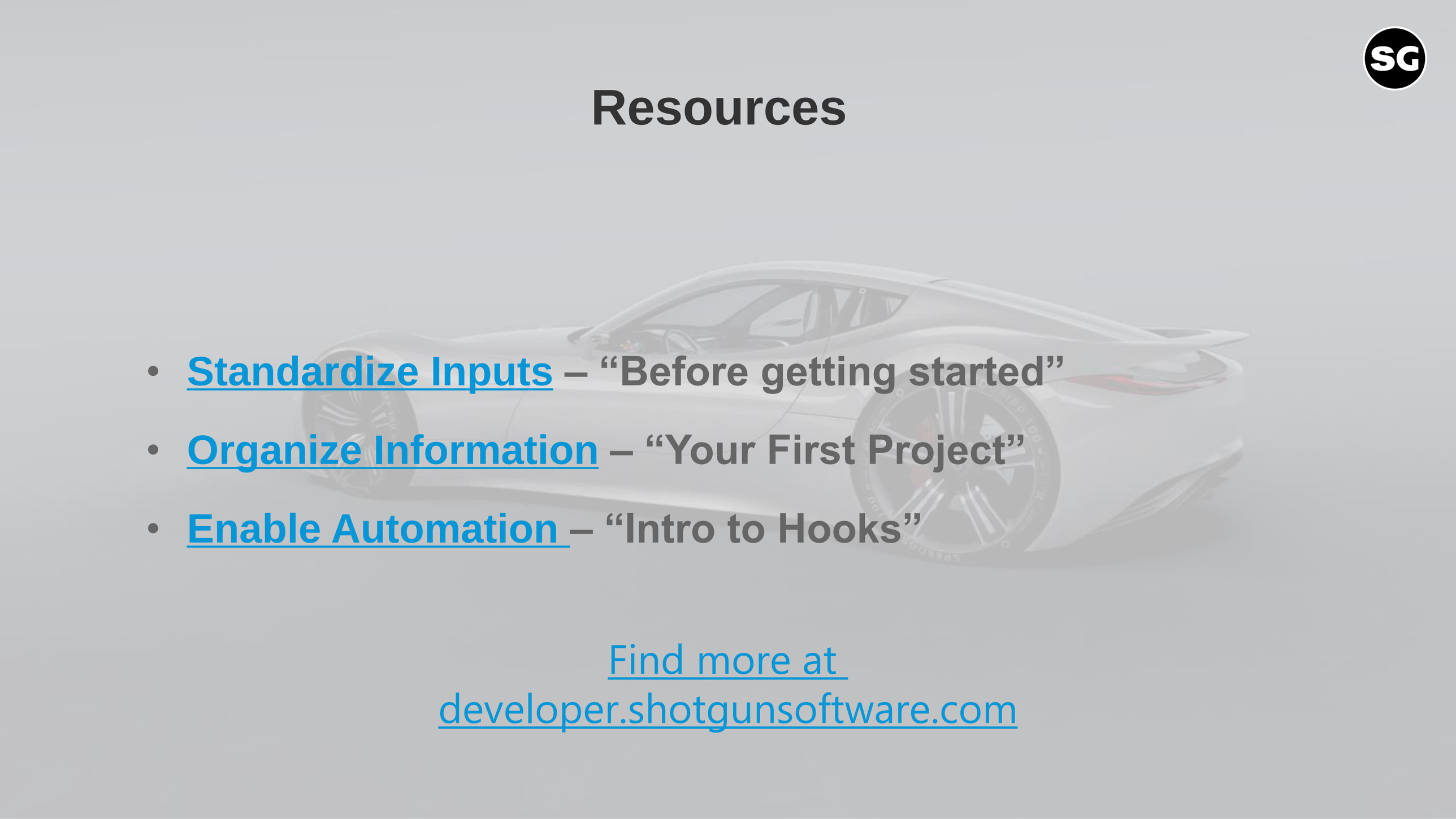


Solution

“Use Shotgun to Organize the Chaos & Enable Automation”



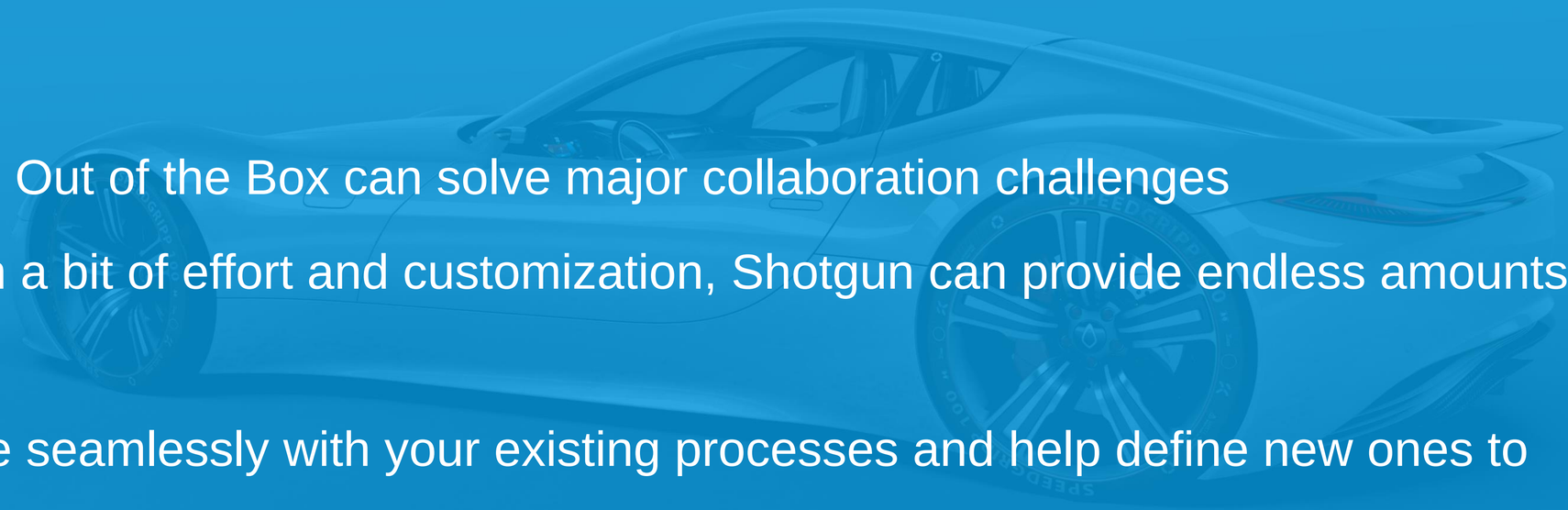
Resources



- Standardize Inputs – “Before getting started”
- Organize Information – “Your First Project”
- Enable Automation – “Intro to Hooks”

Find more at
developer.shotgunsoftware.com

Summary



- Shotgun Out of the Box can solve major collaboration challenges
- But, with a bit of effort and customization, Shotgun can provide endless amounts of value
- Integrate seamlessly with your existing processes and help define new ones to bring your studio into the future

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