Template-Based Workflows in Autodesk 3ds Max 2016

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Class Summary

This session builds on my lecture of a similar name from last years Autodesk University 2014:

“Template-Based Workflows for the New and Part-Time User”

Updates for the release of 3ds Max 2016 and other Autodesk offerings since that time have been added and addressed.
Class Summary

- This session will focus on features and workflows within Autodesk 3ds Max that help speed up and/or automate different tasks.

- These tools & workflows *typically require much less technical knowledge and effort* than those typically found in many other DCC packages.

- These tools can often alleviate artists from needing a technical director or custom development (coding) of any kind.
Class Summary

- Targeted primarily at “new and part-time users”

- Nobody knows it all and that’s A-O-K. Not everyone has to become a guru and that’s A-O-K. It’ll be Ok.

- This session is aimed at individuals and teams looking to add Autodesk 3ds Max to their current toolset for things such as technical illustration, photorealistic rendering and animation.

- This session is mostly about raising awareness to these different resources, tools and workflows.
At the end of this class, you will be able to:

- Discover tools for rapid turn-around
- Focus on workflows for deadline driven work
- Discover resources to speed up your learning curve
- Target the tools for quick and easy turnover that 3ds Max software provides for your specific industry
Agenda

- My resources
- Who/what/why templates?
- Setup/preferences
- Categorized by workflow
About the Speaker

Over twenty years of 3D animation, compositing and A/V editing for TV, film, interactive, simulation and design visualization clients.

Recipient; Autodesk 3ds Max Master Award, SigGraph 2007.

Autodesk Senior Technical Specialist for North America with a focus on Media & Entertainment and Design Visualization.

Interests include photography, music, cooking and time away from computers =)
Who uses 3ds Max?

Everyone.

- Games
- Television/Film
- Architecture
- Engineering/Construction
- Medical
- Advertising
- Publishing
- Graphic design
- Virtual photography
- …and a whole lot more…

With over 17 million monthly users, 3ds Max remains the most widely used tool around the world for Digital Content Creation (DCC)…
One 3ds Max for All Industries

- Blurring the lines between different industries
- Tools and workflows for new and “part-time” users
- New tools for seasoned users
- Something for everyone
Learning Channel

- Autodesk content

- Playlists
  - New users
  - VFX
  - Games
  - Design visualization
  - Motion graphics...

- Workflows
  - Modeling
  - Materials
  - Etc.
Gary’s “Amalgamation”

- Autodesk AREA Blog
- Tips & Tricks
- Longer lectures
- “3ds Max Minutes” Series
- Living documents…
Features by Version (PDF)

- Living document (Google Docs)
- Goes back to 3ds Max 2008
3ds Max Freebies

- “3ds Max Freebies”
  - Living document
  - Collection of free resources
    - Scripts
    - Plugins
    - Training
    - Etc.

Amalgamation
Blog by M&E Senior Technical Specialist, Gary M. Davis. Primary focus is around the Autodesk 3ds Max Entertainment Suites and Autodesk Smoke.

FREE Tools for 3ds Max
Posted 5 days ago by visualz on Amalgamation
Software: Autodesk 3ds Max,
Industry: Games, Film, TV and VFX, Design Visualization,
This is a "living document" that will continue to grow - so please check back from time to time. This is an un-official listing of lots of FREE tools that are out there in the community for 3ds Max. This is obviously a partial listing and the focus here is not things like texture map or model libraries, but, rather, tools that run within 3ds Max that help workflows and pipelines along.

(graphics are both links)
3ds Max Community!

- **Facebook**
  - Largest in M&E
  - Larger than M&E

- **ScriptSpot.com**
  - 90k users/month

- **Maxplugins.de**
  - 200K users/month
3ds Max 2016; Max Creation Graph (MCG)

2min Eye Candy video (link)
Create, customize and *share* tools.
“I have never had so much fun with 3ds Max. I've made great use of MCG for a few current projects I'm working on though I have absolutely no idea how to use MCG.”

Michael Wentworth-Bell
via Facebook Group
Who, What, Where Templates?
Template-Based Workflows

What they are

- Tools to automate tasks
- Tools to speed up tasks
- In-app tooltips
- In-app prompted workflow ‘suggestions’
Template-Based Workflows

What they are **NOT**

- Stock art
- Clip art
- The “make art” button
- 3ds Max for Dummies
Who Benefits from Templates?

- These procedures benefit *new & part-time users* of 3ds Max that might need a jump start to be productive.

- In addition, seasoned users who require *fast turnaround* for deadline-driven projects can opt to save significant man hours using these techniques.
Where to Template Workflows Exist in 3ds Max?

- Setup/preferences
- Interoperability
- <<<Modeling>>>
- Materials
- Rigging/animation
- FX/dynamics
- Lighting/rendering
- UI/performance/misc.
Setup/Preferences
Setup & Preferences

- Customize UI and defaults
- Single-click setup
- Accommodates typical workflows
- Sets up many defaults throughout the application…
Templates and the Design Workspace

- Design Workspace
- Can optionally work with 3ds Max Template system
- Task-based ribbon
- Design-viz focused… but not exclusive to those workflows
Interoperability
Interoperability

- “Aggregation” of data
- 3ds Max currently supports more file formats than any other Autodesk M&E software.
  - A.T.F.
  - Open
  - Merge
  - xRefs
  - File Linking
  - Importing
Establish Real World Scale

- Allows artists to think in human terms and sizes
- Accommodates Template Workflows
  - Modeling/importing
  - Several material shaders
  - Physics engine
  - Physical lighting & rendering
  - Populate
Modeling
Modeling

• Primitives
• Extended primitives
• AEC objects/materials
• Pro Boolean
• Shapes
• Placement Tool

• 3D Warehouse
• Turbosquid
• Autodesk Seek
• Creative Market
• Pro Optimizer (tip)
Autodesk ReCap and 123D Catch

- Photogrammetry (3D models from photos)
- Export to FXB, OBJ…
- Fully textured, polygon models

- **123D Catch** = Free
- **ReCap 360** = Cloud credits
Autodesk Mudbox

- Autodesk Mudbox ($10/mnth)
  - Organic sculpting
  - Layer based painting
  - Retopo and clean-up tools
Materials
Autodesk Material Library

- Access to over 1300 material presets
- Seamless transition between AutoCAD, Inventor, Revit and 3ds Max
- Native SketchUp support
- Common materials found in construction and design
- For use with all native renderers except Scanline.
Autodesk Material Converter

- Third party plugin
- Convert between Arch&Design materials to V-Ray materials and back
- Convert to Standard materials for export to simulation (game) engines
Lighting & Rendering
Lighting & Rendering

- mr render presets
- Photometrics
- IES Profiles
What is ART?

Public beta ends 12/31/2015
Autodesk Raytracer (ART)

- Developed in-house
- Point-and-click
- CPU, progressive, path-tracer
- Physical realism
- Local, distributed & cloud
- Stills & animation
What is ART?

🍀 ART has (had) a few names:
  - ART Renderer
  - Autodesk Raytracer
  - Autodesk 3ds Max Cloud Renderer 2016
  - RapidRT

🍀 ART is **not** the same as A360
Who is ART for?

• Users looking for photorealism

• Autodesk Suites users
Rigging & Animation
Rigging & Animation

- Four Character Animation Systems!
  - Biped/Character Studio
  - CAT
  - Populate (easy!)
  - MaxBones

- Autodesk Character Generator

- Motionbuilder with Kinect
FX & Dynamics
FX & Dynamics

- Particle Flow presets
- Fracture Voronoi
- Mass FX Physical presets
- Hair and Fur presets
Key Takeaways

- Everyone can benefit from Template-Based Workflows in 3ds Max
  - New users, part time users & seasoned veterans on deadlines
- 3ds Max can make it easier to work independently from start to finish
- Something for everyone: Workflows exist throughout 3ds Max in nearly all aspects of production and deliverable types.
- Knowing these resources exist is ~half the learning curve.
Thank you for your time...
Please Follow Me Online:

AREA Blog:  
“Amalgamation”

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@garydvisualz