



## **A Summary of Approaches to Producing 3D Content Using Multiple Methods in a Single Project**

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In-Three creates 3D content from 2D movies using its proprietary process called Dimensionalization®. You can read about how we do this on our web site. In addition the web site contains material that describes what it takes to create "perfect 3D", that is, 3D that achieves a director's vision and has no disturbing artifacts or disparities.

We are often asked to comment on ways to keep the cost of creating such content low. That is, for any given type of shot, which approach costs less, -- Dimensionalization or using computer generated images or stereo shooting (i.e., dual computer cameras or dual real cameras, respectively).

As a guide in discussing this question we have created a matrix describing the potential advantage of each of these techniques. The chart describes the types of shots that are most likely to be realized at a lower marginal cost and why. That is, it describes the approaches that might be worth gearing up for if there are enough particular kinds of scenes.

From In-Three's point of view we know that we can Dimensionalize any 2D content to produce perfect 3D. However, if content contains a preponderance of certain types of shots, then it might be most cost effective for our client to use a "hybrid\*" or "multi-mode\*" approach to creating it. As an example, if a movie is to have a large number of long shots / establishing shots where the closest objects are fairly far away; such scenes might be captured most cost effectively with a stereo 2nd unit, while other scenes are captured in 2D for Dimensionalization.

While this chart deals with multiple-techniques in 3D creation, there are certain requirements where only one mode is appropriate:

- Stereo shooting: Live action sports and entertainment when multiple dual rigs can be set up and pre calibrated to capture "the best seat in the house" for any action.
- CG: Any full animation.
- Dimensionalization: Any legacy 2D content to be converted to 3D.

We have thought a lot about the content of this chart and have asked others to comment and contribute, but most of our direct experience is in Dimensionalization per se. If readers question the chart entries or have additions or comments we welcome their input.

\* By hybrid we mean 3D layers within a shot produced using different techniques then composited together. By multi-mode we denote entire shots of a movie produced using alternate techniques.

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