The invention relates to making 3D animation. Disclosed is a system for capturing motion in production of animation content comprises a space for pickup of moving objects, camera for pickup of moving objects, data processing system, at least one 3D-sensor mounted in the holder of play-actor headwear in front of face thereof for scanning face motions, a device for sound capture and carrier with recorded digital video sequence of script. The data processing system comprises a unit for video sequence processing and audio unit, those are connected to the avatar face image processing unit. Also disclosed is a method for animation content production realized by means of described system which involves generation of face motion scanning data, generation of digital video sequence metadata set and generation of audio sequence metadata set that are used for generation of face data structure, and at animation stage the redirection of digital representation of face motion combinations to intended target object is performed in automatic mode. The invention enables to improve accuracy of actor face motion capturing and accuracy of face motion recording for avatar, enhance the quality of produced animation content and increase efficiency of production thereof.