Transana 2.60
Distinguishing features and functions

This document is intended to be read in conjunction with the 'Choosing a CAQDAS Package Working Paper' which provides a more general commentary of common CAQDAS functionality. This document does not provide an exhaustive account of all the features and functions provided by Transana 2.60 but is designed to highlight some of its distinguishing elements. However, Transana is different from the other software packages reviewed here due to its primary focus on audio/video/still image data. The Comment section at the end details our opinions on certain aspects of functionality and usability. See also Silver and Lewins (2014, 2nd edition) *Using Software in Qualitative Research: A Step-by-Step Guide*, Sage Publications.

Background   http://www.transana.org

Transana is open source software designed to facilitate the transcription, management and analysis of digital video, audio, and still image data. ■ Originally created by Chris Fassnacht, it is now developed and maintained by David K. Woods at the Wisconsin Center for Education Research, University of Wisconsin-Madison, USA ■ Here we review version 2.60 of Transana.

Minimum System Specifications (recommended by developer)

Windows OS: MS Windows 2000 ■ Macintosh OS: MAC OS/X 10.7 or higher ■ RAM 64Mb (minimum) ■ Minimum Screen Resolution: 1024x768 pixels ■ 60-100 MB disk space for Program, 10MB space for Database: the amount and quality of video used is the critical factor relating to required disk space.

Structure of work in Transana 2.60

Transana operates using 3 components: the application, the original media files and the database ■ The database contains the workings of the project; the transcripts, clips, keywords, collections, etc. ■ Media files are not altered by Transana, but remain external to the database ■ The user interface comprises 5 elements (see Figure 1). The menu bar houses the main program controls. The Video window displays the video. The Transcript window provides transcription tools and displays transcripts. The Data window lists the 'database tree', providing various ways of organising data and ideas (episodes, clips, collections, keywords and searches). The Visualisation window displays information about the current media file, such as a waveform or coding information ■ The clip is the basic unit of analysis for audio and video data. A clip is a portion of an Episode (a video or audio file) identified by the user as analytically interesting ■ A snapshot is a coded still image ■ Clips and snapshots can be organised into Collections and coded according to thematic or conceptual Keywords.

Data types and format in Transana 2.60

Transana handles MPEG-1, MPEG-2, MOV, MP4, M4A, most AVI, and WMV (on Windows only) video as well as MP3, WAV, AAC, and WMA (on Windows only) audio ■ Format support presumes appropriate codecs are installed on the computer, and varies based on operating system ■ Other formats may also be supported, or can often be converted using Transana's media conversion tool ■ Transana will not work with video stored on CD or DVD, nor with streaming video due to media responsiveness requirements ■ Database and file manipulation tools facilitate the organization and storage of large collections of digital media. ■ It is not possible to analyse text-only documents not linked to a video or audio file.

Transcribing & Synchronising Audio/Video with written transcripts in Transana 2.60

Transcription Mode facilitates the process of generating written transcriptions and associating them with corresponding video or audio data. The auto-rewind function and play-back speed can be altered to suit requirements and there are various keyboard shortcuts to facilitate the transcription process ■ The waveform is the visual representation of the volume of the source data's audio which Transana can generate automatically upon importation ■ Time codes enable a point in the transcript to be linked to a frame in the corresponding media file. Time codes are inserted manually at appropriate positions in the transcript and they allow easy positioning of the media file from the associated transcript. Additional time codes can be easily inserted later on if smaller data segments are required, and they can be selected across for larger data

segments. Time codes enable the subsequent synchronised playback of video, sound and transcript ▪ Time coded transcriptions generated outside of Transana can be imported and thus synchronised with corresponding audio/video file ▪ Transana can capture individual frames from video files in the transcript, and allows importing of external still images into the transcript. This allows for a unique form of image-based visual transcription, as well as hybrid transcription where images and words are mixed.

Figure 1 : Transana 2.60. Main interface showing synchronised videos and multiple transcripts
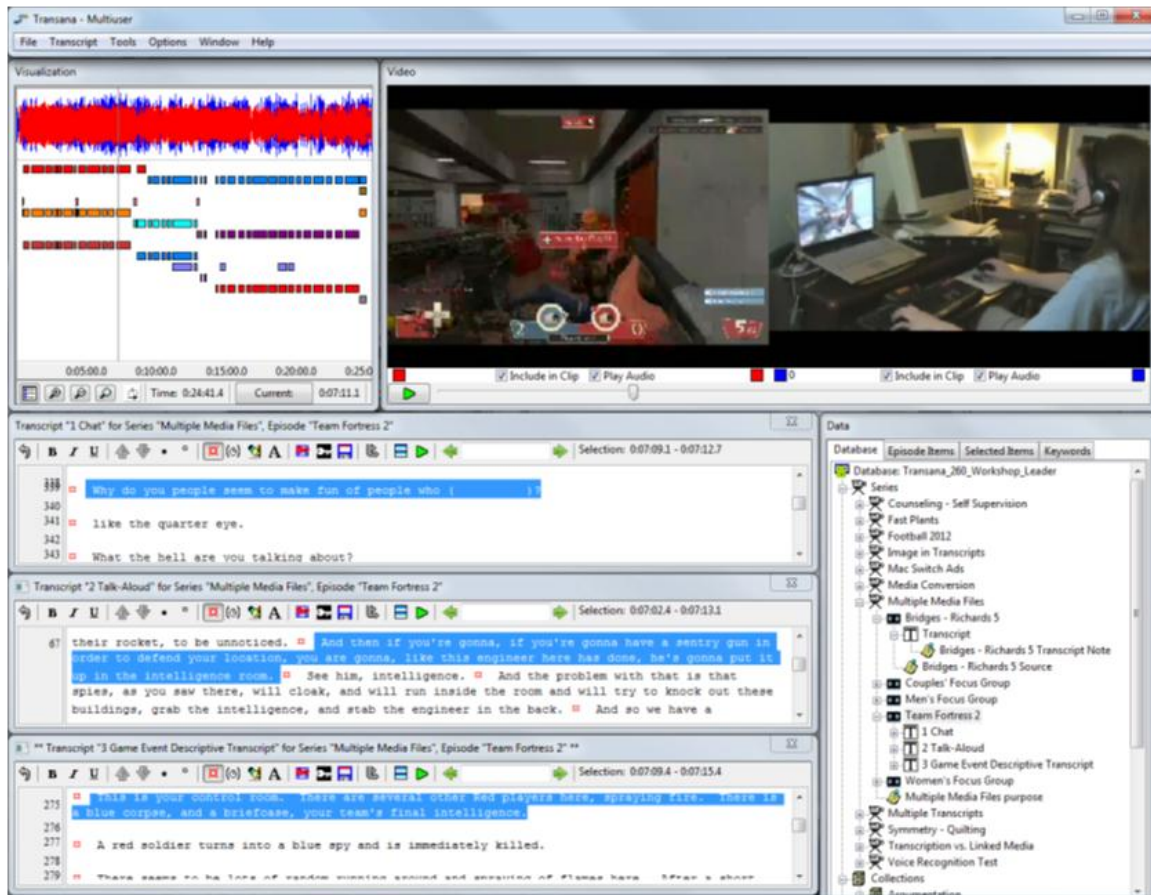
Generating multiple transcripts in Transana 2.60
Different transcripts can be used to represent different aspects of interest in a media file. You can create as many written transcripts as you need for each audio/video file (Episode) in a Transana database, and can display up to five of them simultaneously. This enables a holistic view and representation of a data file or for individual perspectives to be given primacy for certain analytic purposes ▪ Transcripts can be synchronised with the media file individually, allowing time codes to be inserted independently. Clips can be created using any number of currently-open transcripts, allowing for flexible representation of complex analytic ideas and viewpoints.

Synchronising multiple video files in Transana 2.60
Up to four video files representing different perspectives on the same event or phenomena can be synchronised with one another and then played back and analysed simultaneously. Video files need not begin at the same point. Waveforms facilitate the synchronisation process ▪ Synchronised media files can be controlled simultaneously via the media control bar. The audio of individual videos can be disabled as required. ▪ Multiple transcripts can be created for each synchronised media file and clips can be created with any combination of currently-open media files, allowing different perspectives to be prioritised as desired.

Still Images in Transana 2.60

Still images can be analysed within Transana and are referred to as "snapshots." Such images can be captured from video files in Transana, or come from existing image files. Snapshots can be resized, zoomed, positioned and coded to emphasize portions of the original image and to focus attention on salient aspects of images. Snapshots can be associated with a specific location in a media file for context and be embedded within transcripts.

Closeness to data and interactivity in Transana 2.60

Synchronisation of audio/ video, waveform and written transcript keeps the user very close to all three data representations simultaneously ▪ Interactivity is very good: control video playback from any window: clicking on a particular point in one window takes you to the corresponding point in other windows ▪ Resizable windows enable focus on the required aspect. View clips individually or collectively, or in context. ▪ Clips are independent segments of Episodes thus making it possible to work exclusively at the level of Collections and Clips – i.e. without applying keywords.

Coding Schema in Transana 2.60

Coding processes happen in Transana by creating and applying keywords to clips, snapshots, or collections. The process and functionality of Keywords in Transana is essentially the same as coding in other packages. Collections may be used as an organizational tool for 'descriptive' sorting, with the application of keywords being a secondary, more analytic process. Or Collections can be conceptualized as a type of coding that indicates the single most important or salient code applied to an analytic object. ▪ The keyword database tree is hierarchical in that keywords must be created within Keyword Groups. Keywords can, however, belong to multiple Keyword Groups.

Coding Processes in Transana 2.60

An audio or video data segment can only be assigned a Keyword if it is encapsulated as a clip. Because clip boundaries are determined by time codes in transcripts, this means that coding must occur via a transcript. Coding and clip creation can occur as a single analytic act, or can each be accomplished separately. Keywords can be applied to episodes, collections, clips, or snapshots. ▪ A clip or snapshot can be assigned multiple Keywords, and can appear in multiple collections. Keyword(s) can be assigned to clips and snapshots in various ways, including via drag and drop. Clips can be merged. ▪ Snapshots can be coded at the whole image level. In addition, keywords can be assigned shape, color, and line style, and "Coding Shapes" can be drawn on snapshots for more detailed coding within images.

Basic Retrieval of coded data in Transana 2.60

There are three ways to retrieve clips and snapshots: individually, by Collection, or by using the Search tool to find clips and snapshots (regardless of collection) to which (combinations of) Keyword(s) have been applied. The first two ways are independent of the way the data has been "coded" (application of keywords). ▪ Retrieval by Collection is a very quick and easy way to view all clips which have been grouped together sequentially. ▪ Summary Information is very easy to access, providing an overview of which Keywords have been applied to the clips and snapshots. Summary information can be outputted in various ways.

Organisation of data in Transana 2.60

Source audio/video files and their associated transcripts are organised into Series of Episodes with transcripts when assigned to the database. A Series may have multiple Episodes (which are likely to be separate audio/video files), and an Episode may have multiple Transcripts. ▪ Socio-demographic characteristics are handled at the Keyword level, and can be assigned semi-automatically to Series, Episodes and Clips or manually in the ways described above. ▪ Analytic audio/video segments and still image snapshots are organized into Collections. Collections are organizational holding bins, but can be used to operationalize theoretical constructs where methodologically appropriate. Collections can be nested within other collections to create a hierarchical organizational structure when desired.

Writing Tools in Transana 2.60

Transana provides writing spaces through its Notes Tool. Individual notes (which may act as analytic memos or practical / procedural comments) can be applied to Series, Episodes, Transcripts, Collections, Clips, and Snapshots (but not to Keyword Groups or Keywords – to which definitions can be specified). ▪ The Notes Browser allows all notes to be viewed and edited centrally and it reflects the main database tree structure and individual notes can be located within it from the Browser. Clips and Snapshots to which individual notes are attached can be loaded from within the Notes Browser and external reports containing all or selected notes can be generated and exported. ▪ Search for words or phrases across notes in order to locate similar comments.

Searching and interrogating the database in Transana 2.60

The presence and absence of keywords as they have been applied to clips and snapshots is retrieved via the Search Tool using standard Boolean (AND, OR, NOT, and parentheses) operators. ▪ Searches can be saved and re-run. ▪ The results of searches are initially stored in a separate part of the database structure but they can also be converted into Collections for quick play-back.

Visual tools in Transana 2.60

Various visual tools provide alternative representations of aspects of work. Different visualisations enable more or less emphasis to be placed on aspects of work and the ability to alter colours used in the graphics provides an additional level of display. ▪ The keyword visualisation shows how an episode or clip has been coded, including the ability to customize the information displayed. ▪ The hybrid visualisation displays how a media file has been coded in its entirety alongside the waveform view. ▪ There are also a number of ways in which graphs can be generated to represent data alternatively. These include the Keyword Map which shows the distribution of coding across the time line of a media file; the Collection Keyword Map which allows comparison of coding for clips gathered from various sources into a Collection; the Series Keyword Sequence Map which enables the identification of coding distributed across Episodes; the Keyword Sequence Percentage Graph which show how keywords have been used across Series Episodes; and the Keyword Sequence Bar Graph which shows total keyword usage across Series Episodes.

Output options and presentation mode in Transana 2.60

Reports, maps and graphs can be exported , including: Series, Episode, Collection, Keyword Summary, and Notes reports, and Keyword Map, Collection Keyword Map, and the Series Keyword Maps and Graphs. ▪ Outputs can be refined using saveable filter configurations which can embody specific analytic views. ▪ Presentation mode facilitates the demonstration of work with others. Video can be presented during play-back in different ways; 'Video only' displays the video window in full screen and 'Video and Transcript only' displays the video and scrolling highlighting of synchronised transcript (if auto word-tracking is enabled).

Team working in Transana 2.60

The multi-user version of Transana is specifically designed for collaborative projects. It is a separate application allowing multiple users (in different locations) to communicate and work on the same Database at the same time. ▪ This facilitates real-time analytic collaboration between distributed teams, whether working on the same or different networks. ▪ Users can set up their own servers for multi-user Transana or can sign up for the Transana Cloud Service. ▪ The chat window enables real-time communication with team members whilst working in a multi-user database. It is a synchronous text-based tool, facilitating collaboration as well as acting as a record of communication and decision-making.

Comment on Transana 2.60

Transana is low cost and open source software, developed specifically for the analysis of video data. Source code is openly available so Transana can potentially be customized to suit the needs of a particular project. Researchers primarily using audio/video data are recommended to consider this software carefully as it may provide a number of important advantages in comparison to other options in this respect.

Interactivity   *Transana is very easy to use. The ability to synchronise playback of video, sound and transcript and to control playback from any view is seamless and analytically helpful. Interactivity between windows and analytic functions is good.*

Synchronicity of multiple files and transcripts   *The ability for each media file to have multiple transcripts associated with it is very useful for analytic purposes where there is a need to interpret the same data from different perspectives. Similarly, the ability to synchronise multiple media files with one another offers a sophisticated means of analysing associated video, which may be particularly useful for projects with a focus on interaction and other forms of non-verbal communication. These features are unusual in CAQDAS packages.*

Integration of additional data formats *Transana currently does not easily enable the analysis of projects where textual data other than video transcripts are being utilised as a primary source of data.*

The structure of the database *tree system is a little confusing at the outset as the organisation of Clips into Collections can play a similar function as the organisation of keywords into Keyword Groups. In addition, each clip, collection, keyword group etc can have its own ID – requiring clear and systematic use of IDs and groups of other objects (collections, keywords etc.).*

The Search Tool *is not as sophisticated as most other CAQDAS packages, only providing standard Boolean operators (AND, OR, NOT and parentheses) for searching for the occurrence of keywords in the dataset. The ability to create clips and collections can obviate the need to use keywords for general sorting purposes and any clip can belong to any number of collections. However subsequent searches are based on the presence or absence of keywords and keyword groups rather than clips or collections.*

Team working *The ability of the multi-user version to allow geographically dispersed researchers to work on one database simultaneously is unique amongst the software reviewed here and can significantly facilitate collaborative team working. Setting up the multi-user version requires a degree of technical expertise or IT support, although information on the Transana website is useful in this regard. Alternately, the Transana Cloud Service eliminates the need to set up a personal server. Whilst any team member can make changes to a database when using the multi-user version, changes are not automatically tagged or logged according to who made the change. Therefore teams need to find workaround solutions if it is important to the progress of the analysis to track 'who did what'.*

Further Reading

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