

ITEMBUILDER NEW RELEASE

2014 / Fall

CBA ITEMBUILDER RELEASE VERSION 6.0.0

Exiting new features:

- Audio and video recording
- Updated rendering at runtime
- Simple setup

TBA Technology
Based Assessment
Ein Arbeitsbereich des DIPF

Welcome to the first CBA ItemBuilder newsletter, with which we would like to inform users and researchers about latest updates of the item authoring tool CBA ItemBuilder.

With the new version a major milestone has been reached in the pursuit of TBA, the interdisciplinary research and service unit at DIPF in Frankfurt a. M., to support empirical educational research and educational practice in the implementation of technology-based assessment *of and for learning*.

Some of the useful new features of CBA ItemBuilder version 6.0.0 are roughly sketched here. The CBA ItemBuilder is available at no costs for scientific purposes. Please e-mail to tba-info@dipf.de to gain access to the latest version. For further improvement of the CBA IB, we appreciate your feedback.

NEW FEATURES OF THE CBA ITEMBUILDER 6.0.0

Audio and Video Recording

One of the new features in CBA 6.0.0 is audio and video recording, an important first step towards innovative assessment of productive competence, such as spoken language. With this functionality, an available webcam or a connected microphone can be used to record test-takers' responses as video or audio files.

There is no particular software necessary to use this new feature in items created with CBA ItemBuilder: The API used for video and audio recordings is supported by many browsers like Firefox and Chrome. Hence, audio and video recordings can be used now for assessments under controlled deployment conditions (see Screenshot 1 on the left).

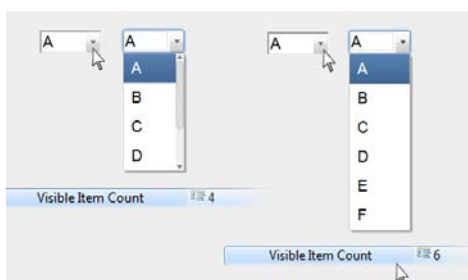
For scoring purposes of the recorded responses, the CBA ItemBuilder can be used to present the gathered audio or video files of a particular item to human raters, who can assign individual scores to each response.

Layout Improvements

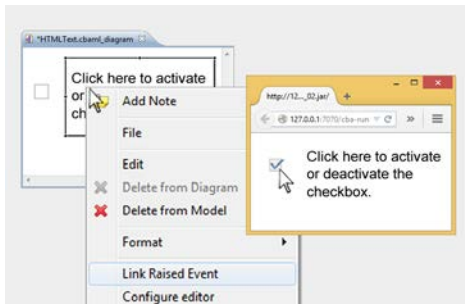
The software used by ItemBuilder for generating HTML code for displaying a particular item has been updated to the latest version (RAP 2.3). This is a crucial step to enable many further developments. For instance, with the new property "VisibleItemCount" it is now possible to define the number of



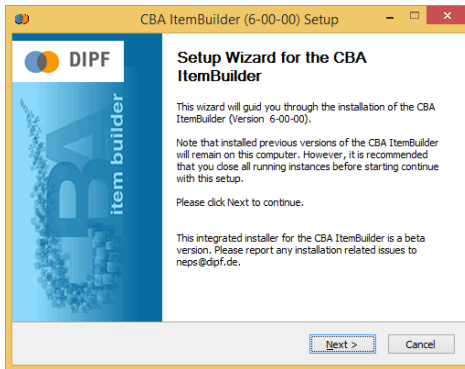
Screenshot 1: Capture audio and video responses with version 6.0.0 of the CBA-ItemBuilder.



Screenshot 2: The number of visible elements in comboboxes can now be defined with the property "VisibleItemCount".



Screenshot 3: Line breaks, word wrap or colors of text distractors are no longer restricted with the new option 'Link Raised Event' for 'HTMLTextFields'.



Screenshot 4: The 'Simple Setup' deployed with version 6.0.0 of the CBA ItemBuilder.

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elements visible in ComboBoxes without scrolling as well as the precise definition of font sizes and font family for ComboBoxes (see Screenshot 2 on the left).

Scoring of String Responses

A new scoring operator was defined to simplify scoring of text input from any single or multi line input field.

Link Raised Event to HTMLTextFields

Using this new feature, each read-only HTML TextField can be used as an anchor for radio-buttons and checkboxes. This allows a flexible design of texts aligned to check boxes or radio buttons (see Screenshot 3 on the left).

SIMPLE SETUP

The TBA group developed a new setup script for deploying the CBA ItemBuilder on a Windows computer. This new modular installer also creates shortcuts to all important URLs needed for the Execution Environment to simplify testing.

Moreover, multiple versions of the CBA ItemBuilder can be installed in parallel (see Screenshot 4 on the left).

RECENT STUDIES USING THE CBA ITEM BUILDER

Recently, data collections using the CBA ItemBuilder have been finished for the following three studies:

- In the National Educational Panel Study (NEPS) new units for computer-based reading assessment of students and adults were administered in households with tablet computers.
- Innovative, simulation based items for the assessment of ICT skills have been administered from USB thumb drives for the project CavE-ICT PISA.
- In the notebook based data collection of the ZIB study ReTiCo, time restricted items for reading assessments have been administered with different feedback conditions.

WORKSHOP ANNOUNCEMENTS

The next regular workshop by Vanessa Teckentrup and Dr. Thomas Martens will take place November 24th, 2014 from 9 a.m. to 4 p.m. at DIPF in Frankfurt. Please contact Dr. Thomas Martens (martens@dipf.de) for details.