



The Challenges of Prompting Memory Recall across a Very Long Reference Period: A New Life Event Calendar

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Our Goals

- To present ten years of life event data on a calendar that is displayed in a way to help prompt memory recall for the respondent
- To facilitate an interview setting and format that allows interviewers to dialogue, probe, and offer corrective feedback to respondent



Our Project

- Called “Desistance from Crime”
- Follows a cohort of known criminals from 2003-2004 to see what is happening 10 years after the original study
- Determine what factors may cause a person to desist from committing crimes



Our Challenges



- Fitting a lot of life event data onto a calendar that spans a ten year period while keeping it clean, understandable and readable!
- Providing a tool/interface that assists respondents with recalling key events over such a long period
- Training FIs to conduct a high-quality interview using less scripted probes

What is a Life Event Calendar (LEC)?

- Used to gather personal, historical data
- Tool that aids with autobiographical memory recall, especially over time and across events
- LECs typically range from 6 months to 3 years
- Our LEC covers a 10-year span to allow analysis since last contact with cohort

Desistance Wish List for the LEC

- ✓ Single desktop application
- ✓ Easy to use and develop
- ✓ Intuitive and graphical
- ✓ Seamlessly integrates all features
- ✓ Accurate in prompting recall
- ✓ Low cost!



Key features/parameters

- 8 domains of data
e.g. Attitudes, Location, Relationships, Work /School, Stressors, Substance use, Illegal activities, Incidents
- 30 sub-domains of data
e.g. for Illegal activities: Weapons, Crimes, Property Crime, Prostitution, Drug Deals, Robbery, Partner Violence, Non-Partner Violence
- Survey instrument integrated with the LEC



BIG Challenges

- Screen Real Estate!
- Multiple Domains & Sub-domains of data
- Integrated Survey instrument & Life Event Calendar (LEC)
- Develop an FI training program that includes enough variety in mock scenarios (to simulate respondent recall challenges)



clean



&



easy

After some evaluation, we selected...

- ✓ Microsoft Windows Presentation Foundation (WPF)
- ✓ UI framework which produces attractive, user friendly applications
- ✓ Powerful and highly graphical
Originally known as “Avalon” and released in .NET framework 3.0. Uses DirectX over older GDI subsystem for the sharpest, most modern graphical interface
- ✓ Rich collection of attractive, highly polished “out of the box” UI controls



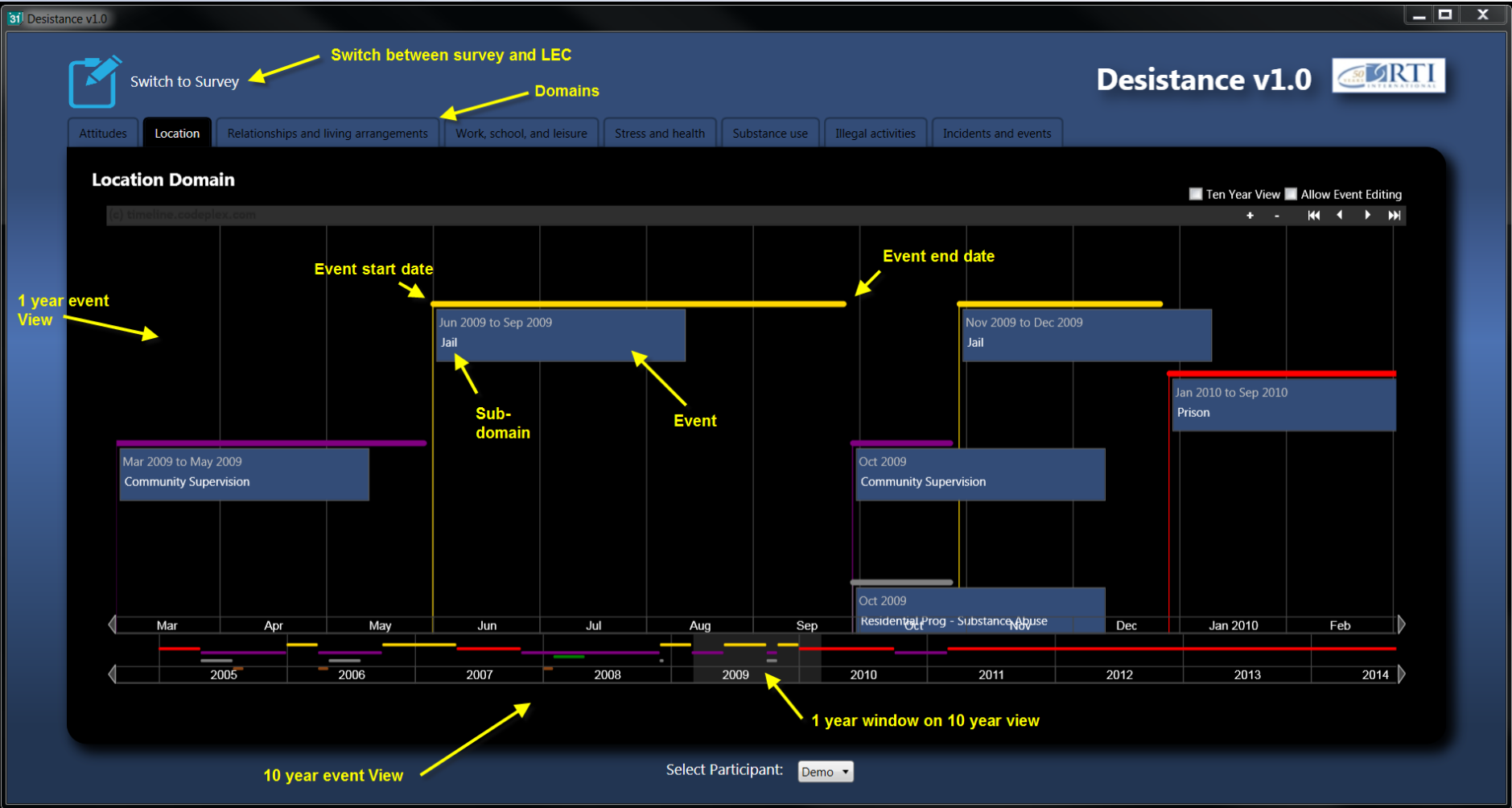
Demo



Please
Note

- The application works best at HD resolution (such as 1920x1080)

Demo – View Mode



Demo – Edit Mode

The screenshot displays the 'Desistance v1.0' software interface in 'Edit Mode'. The main window is titled 'Location Domain' and shows a timeline from 2005 to 2014. The timeline is divided into monthly segments, with years 2005 through 2014 labeled at the bottom. Several events are plotted as horizontal bars with date handles:

- Mar 2009 to May 2009:** Community Supervision (purple bar)
- Jun 2009 to Sep 2009:** Jail (blue bar)
- Nov 2009 to Dec 2009:** Jail (blue bar)
- Oct 2009:** Community Supervision (blue bar)
- Oct 2009:** Residential Prog - Substance Abuse (blue bar)
- Jan 2010 to Sep 2010:** Prison (red bar)

Annotations with yellow arrows provide instructions on how to edit these events:

- Duplicate Event:** Points to a plus sign icon on the 'Community Supervision' event from Mar 2009 to May 2009.
- To change Start Date Click and drag event or, use Calendar:** Points to the start date handle of the 'Jail' event from Jun 2009 to Sep 2009.
- To change End Date Click and drag End Date handle or, use Calendar:** Points to the end date handle of the 'Jail' event from Jun 2009 to Sep 2009.

At the top right, a 'Toggle Edit Mode' button is highlighted with a yellow arrow. Other interface elements include a 'Switch to Survey' button, a navigation bar with tabs for 'Attitudes', 'Location', 'Relationships and living arrangements', 'Work, school, and leisure', 'Stress and health', 'Substance use', 'Illegal activities', and 'Incidents and events', and a 'Ten Year View' checkbox.

Cognitive Interviewing results

- Using the mock life events calendar underscored the importance of the calendar in benchmarking events against each other (moves, jail, treatment, roommates).
- This indeed required a conversational approach to interviewing.
- Some participants described events by “season” and would pick a month that corresponded with that “season”. (i.e. One chose October for something they knew happened when it was getting colder outside.)

More results

- When thinking of events that caused severe or unusual stress, R's often thought of money or other more abstract issues and said the stress lasted for months or years.
- One possible future enhancement to the LEC:
 - Dedicate a month to represent certain seasons to be consistent when participants are using seasons as time frames. Or...
 - Create a set of seasonal response options.

Summary

- WPF appears to be a great choice for an LEC with its low learning curve and extensive features out of the box.
- Although a 10-year period of memory recall is daunting, our team is excited about the possibilities for this new framework
- NEXT – Just completed some initial cognitive testing and looking ahead to the field work (Jan 2016)

References

- Belli, R. F., Shay, W. L., & Stafford, F. P. (2001). Event history calendars and question list surveys: A direct comparison of interviewing methods. *Public opinion quarterly*, 65(1), 45-74.
- Glasner, T., & Van der Vaart, W. (2009). Applications of calendar instruments in social surveys: a review. *Quality and Quantity*, 43(3), 333-349.
- Roberts J, Horney J (2010) The life event calendar method in criminological research. In: Piquero AR, Weisburd D (eds) *Handbook of quantitative criminology*. Springer, New York.
- Sutton, J. E. (2008). *A Test of the Reliability and Validity of the Life-events Calendar Method Using Ohio Prisoners* (Doctoral dissertation, The Ohio State University).

Questions?



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