The Desktop

- Users are faced with a desktop that holds materials that they are familiar with: Scores [second row] (from the Score Shelf [top row]), and a collection of analysis notes [top left]
The Score Analyzer

- A double click on the score brings up this tool
- High quality display derived from SCORE layout data
- Voices have a fixed vertical position throughout the whole work
- Navigation options: relative (scroll bar) and absolute (buttons, combo boxes and input fields)
• Whatever the musicologist deems interesting can be marked up
• mark components can be arbitrarily chosen at set up depending on the type of analysis (here: melody [red], harmony [green], rhythm [blue]). “Set Theorists” could choose not to make these subdivisions.
The excerpt [top], its musicological abstractions [below excerpt] and its location [bottom] are automatically filled in.

- Abstractions can be based on either mark component.
- *any* Humdrum representation (existing or future) can be chosen.
  Here: pitch (ANSI and German), pitch class and semitone contour.
• Text fields and color are the only things that need to be entered manually by the user, if so desired.

• The number and labels of text fields can be freely chosen and set up. Here: three different kind of labels for the musical element plus the reason for its occurrence.
After mark up

- The newly marked element is now permanently marked up in the score (label and color according to choices made in the editor)
- A double click on a marked up element brings up an editor again
The Note Collection Browser (1)

- All notes are automatically entered into a note collection
- It can be browsed using the note lister on the left [13 notes made so far]
- The selected note is displayed in the note viewer on the right
The note list can be filtered based on any element of a note (musicological abstraction, text field, position or color) using the note selector [center].

Filter criteria can be combined. [Here: All notes that start on a C have a semitone contour of \(* +4\ 0\ +3\ +2\) and that occur after measure 50]
The Score Searcher

- The musicological abstractions can also be used (isolated or in combination) to search the score.
- Results are listed [top right]. If a result appears to be musicologically relevant to the user, it might become the basis for a newly marked up element.
• Users can zoom out to get an overview over the structure of the work
Structural Overview (2)

• Everything except the marks can be faded out to get a clearer structural picture. This also helps to distinguish the colors better.
• All musicologically demanding operations are not implemented in JRing but realized using Humdrum.

• A Humdrum file is generated for every note. These can be used in complex Humdrum command chains in case JRing’s analysis features are too limited and the user is proficient in UNIX