VPL Taxonomy

SCG Seminar Project

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Project

- VPL: visual programming language
- Create taxonomy for VPLs
  - how should a VPL be characterized?
- Existing surveys incomplete or out of date
Visual Programming

“Visual programming is programming in which more than one dimension is used to convey semantics”

Margaret M. Burnett, 1999

- Additional dimensions:
  - multidimensional objects
  - spatial relationships
  - time dimensions
Visual Programming Language

− Definition not clear-cut

− Approach:
  − collect VPLs
  − extract features
  − create a classification system
Taxonomy

Classification system by Burnett and Baker

- paradigms and visual representation combined
- purpose
Taxonomy

- 2 extra dimensions based on VPLs found:
  - programming knowledge
  - amount of text code
Paradigm: graph-based (dataflow)
Paradigm: tile-based
Paradigm: flowchart-based
Paradigm: 3D programming
Paradigm: WYSIWYG editing
Purpose

- general-purpose
- multimedia processing
- user interface generation
- visualization
- simulation
Programming knowledge

- experienced programmers
- beginner programmers
- basic scripting
- non-programmers
Programming knowledge: beginner
Amount of text code: just visual
Amount of text code: hybrid
Conclusion

- 4 dimensions:
  - paradigm & visual representation
  - purpose
  - programming knowledge
  - amount of text code