CONSOL: Interactive, graphics-based system

- Late 1970s and early 1980s (at UC Berkeley): DELIGHT, co-developed by A. Tits
- 1980s (at UMD): UNIX-based CONSOL, spearheaded by Michael K.H. Fan. CONSOL was a key feature in the NSF proposal that led to the birth of the ISR. Application to control system design (NASA Ames; led to W.S. Levine’s CONDUIT) and to circuit design (Westinghouse).
- Early 1990s (at UMD): advanced graphical interface developed by P. Yan
- 1990s (at UMD): CONSOL for Windows, developed by four undergraduate students: J. Bei, G. Krikor, D-T Nguyen and N. M. Sharma.

User explores tradeoffs by interactively/graphically adjusting "good"/target and "bad" values and curves, driving the design to the initially ill-defined "best" solution.

FSQP: Advanced optimization code (C/Fortran) for complex constrained optimization problems

- 1990s, with Jian Zhou and Craig Lawrence. Used in some more recent versions of CONSOL.

2000s: Versions of CONSOL and FSQP used and extended by other ISR research groups, in particular under the leadership of John Baras and Mark Austin. Extension to mixed-integer problems, etc.

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