

Why expensive to change

- no consistent programming style
- obsolete programming lan.
- inadequate documentation.
- structure - difficult to under.
- program optimization used - harder to understand
- db - errors, duplications, inconsistency

Replacing Legacy systems,

- Expensive
- Risky

Why?

- lack of complete specifications
- system tightly integrating with business
- undocumented business rule
- new s/w - late, over budget

Evolve Legacy Systems

- low quality - low bus. val.
 - ↳ better to be scrapped
- ↓ quality - ↑ busin. va.
 - ↳ reengineered/replaced
- ↑ quality - ↓ b. v.
 - ↳ continue maintenance/replace with cost
- ↑ quality - ↑ b. v.
 - ↳ normal maintenance

Business Value

- use of the system
- business processes are supported
- system dependability
- system outputs

Assessing legacy systems

LEGACY SYSTEMS

Environment assesment

- supplier stability
- failure rate
- age (h/words/w)
- performance
- support requirem-ents (more changes)
- maintenance cost
- interoperability (problems with introducing other systems)

Application assesment

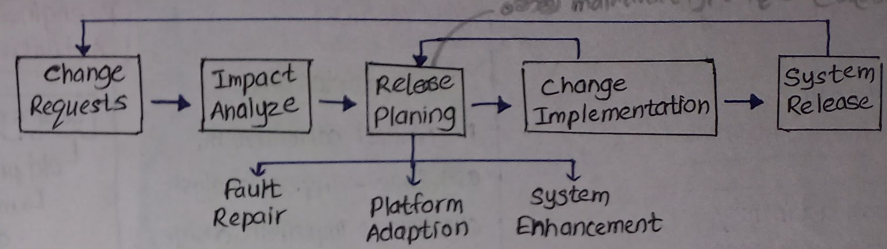
- understandability (source code)
- documentation (availability, updated)
- data (db)
- performance
- programming language
- configuration man. (versions)
- test data (recode data)
- personal skills (people available)

Business Process Assesment

- how well the business process support the current goal of the business

Quantitative facts

- no. of change requests
- no. of different user interfaces
- volume of data
- cleaning up old data



change identification and evolution process

Lifecycle

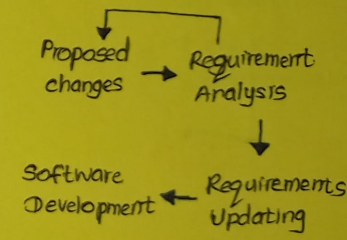
- Evolution
 - ↳ new requirements are proposed & implemented
- Servicing
 - ↳ changes apply - keep operational
- Phase-out
 - ↳ still used - no changes are made

SOFTWARE EVOLUTION

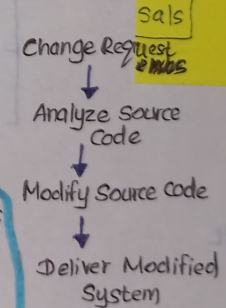
Change Proposals

- new requirements
- bug reports
- new ideas

Updating SRS :-



Urgent Change Requests and emergency repair process



Agile Method & Evolution

- ↳ changes may be expressed as additional user stories.
- Development time and evolution team preferred process model