ELECTRICITY DISTRIBUTION INFRASTRUCTURE MASTER DATA GOVERNANCE USING THE MASTERKEY TOOL

City of Cape Town
C Plüddemann
Opening Questions

- Identify quantities of different types of equipment?
- Can you confidently justify balance sheet values to auditors & quickly provide corresponding asset lists?
- Can you accurately budget for replacement of equipment:
  - Very poor condition?
  - Non-maintainable obsolete models?
- Can you determine preventive maintenance workload to establish staffing requirements?
Topics

- Critical success factors for Enterprise Asset Management initiative
- Master data & data governance
- Masterkey software tool
- Master data collection
Core Message

- Cultivate a master data governance mind-set and become obsessive about data quality as you progressively develop a comprehensive master data management (MDM) solution.
- Failure to do this will deflate any other initiatives in the Enterprise Asset Management space – getting it right is of fundamental importance.
Critical EAM Success Factors

- Strong business drive & desire to make it work
- Passionate business champion
- High quality, trustworthy master data
- Effective business processes
- Organisation structure: dedicated masterdata people
- User education, buy-in & support
- Effective software
- Data collection, maintenance & refinement is a long term commitment
Master Data

- **Master data** – core information without which business can’t function.

- **Master data governance** embodies convergence of data quality, management, policies, business process management & data handling risk management to exercise control & assure data value.

- Key role players required for data governance
  - **Data custodians** (keep data safe & implement business rules) - IS&T
  - **Data stewards** (actual data content & updates) - Business
Masterkey Data Flows & Roles

Reports and plans on:
- Equipment replacement schedules
- Problematic equipment (manuf/model nr)
- Basis for starting BOM’s using class profiling.
- Equipment standard compliance via take-over/hand-over audit trail

Equipment standards/Engineering projects

Collection of:
- Tech. Obj. header data.
- Nameplate data
- Lat/Long
- Condition data (including photo)

Masterkey (local db)

Field Data Collector

Database running on laptop/tablet PC—only contains user's data

Master Data Administrator
- Approves/Rejects Master data changes
- SAP workflow used for exception handling in inbound data
- Health checks
- Direct updates in SAP for centralized master data

MySQL Masterkey db

Extract a subset of data

Sync changed data to central db

Purified Master Data in SAP.
Technical Object Structure

- Each technical object in field uniquely represented
- Lowest levels are maintenance relevant items
- Predefined codes at each level & strictly enforced
- Facilitates reporting, easy master data maintenance
Classes & Characteristics
Starting Collection Process

- Functional locations via spread sheet template
- Validated & correct data uploaded to Masterkey
- Error logs via web interface for invalid data
- Collection plateau - data transferred to SAP
- Masterkey – SAP automatic interface live

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Field Data Collection

- 3 year tender
- 9 YUMA tablet PC’s

MV data to Sep 2011
- 1 million line items
- 100 000 photos
- 50 000 condition assessments
Masterkey Collection Screens
Key Take Home Points

- Master data is foundational information on which business depends, so it must be trustworthy.
- Continuously update master data to accurately represent equipment status in the field in real time.
- Spend time & effort on master data design.
- Technology is only part of the solution.
- Proper data governance requires dedicated, suitably skilled people embedded in business.
- Close relationship between IS&T and business, sharing common goals & reciprocal support.