CM-3 Group 3 – Tools & SMEs
Outline for Breakout Session

TOOLS

1.   Types of Tools

        a.   Risk Management – Database & Reports, risk register, risk forms, risk
                tracking & monitoring, basis of estimate, action item tracking, historical
                record of risks & changes, configuration control, enterprise-wide, metrics, risk
                performance index, risk checklist, graphical display, management reporting
                (various levels), risk communications

        b.   Risk Analysis

            i.   Cost,

            ii. budgets, funding, cash-flow analysis,

            iii. Schedule

            iv. tailoring categories

            v.   Integrated Cost & Schedule

            vi. Project phase analysis; organization ownership & joint planning

        c.   Risk Knowledge and Lessons Learned Database

            i.   Enterprise-wide

            ii. Job/owner-specific

            iii. Workshops – project specific, risk management,

            iv. Reference Material (Risk List, RMPs, articles, reports, organize by type of
                 project,

(techniques – guidelines & best practices)

2.	Risk Management Tool Attributes (Database & Reports, risk register, risk forms, risk tracking & monitoring, basis of estimate, action item tracking, historical record of risks & changes, configuration control, enterprise-wide, metrics, risk performance index, risk checklist, graphical display, management reporting (various levels), risk communications)

a.	Database for risks and WBS elements – capture all categories per guide (e.g., likelihood,), include basic steps,

b.	Enterprise-wide (multi-project) storage and access (possible Web-accessible)

c.	Integration with risk analysis tool(s); with site action tracking, notification (email)

d.	Standard and custom report writing

e.	Ease of use; build-in guidance (check list); menu driven; tutorial, Q&A,

f.	Select inclusion or exclusion of risks, data

g.	Passes muster (EIR, IPR); peer reviewed

h.	Ownership of program, help desk

i.	Value-added training on tool(s)

j.	Multi-platform, multi-system compatible

k.	metrics – Risk Performance Index,

l.	graphics output

m.	Risk status – closed, open, value, level,

n.	mitigation status, efficiency,

o.	progression of contingency remaining

p.	user-developed software community

Exiting tools: Pertmaster (single project, single schedule, only, Oracle, stand-alone,)

Access - PDCF

Excel – SING, SING II, SC projects, ACP (OR),

Project-specific Risk Managers – UPF – multi-user, Access DB (going to SQL)

Idaho – SQL

3.   Risk Analysis Tool Attributes

a.   General

    i. Monte Carlo analysis

        1. Inputs

               a. Impacts to cost and schedule

               b. uncertainty of inputs

               c. Likelihood probabilities and basis

               d. distribution selected and basis; rationale for using various inputs – expert guidance, best practice

               e. interaction between risks – codependence

               f. potential random (default?) selection of distribution of cost – input cost distribution; expert input on distribution selection

               g. time-phase input

               h. scenarios

        2. Outputs

               a. Distributions

               b. Graphics

               c. Key risks (tornado)

               d. Sensitivity

               e. Various export formats

               f. time-phase output (e.g., cash flow)

    ii. Selective modeling capabilities

          1. Standard and custom probability distributions

      iii. Threats and opportunities

      iv. Integrated with risk management tools

      v. Customizable

      vi. document attributes of the analysis – who did it, qualifications, experience, uncertainty, time to do evaluation,

      vii. Other

   b.   Cost and schedule combined

   c.   Cost only

      i. budgets

      ii. contingency drawdown, statistics/metrics

      iii. forecasting ETC, MR/contingency

   d.   Schedule only

      i. integrated with schedule tools

      ii. identify impact on key milestones

Tools Used:

Pertmaster (Risk Manager) cost & schedule– Pro – bolt on with Primavera P6, cost & schedule, risk register (standard list), robust schedule analysis, good output graphics, logic integrity,

     Con – support by Oracle in future, license cost increases, stand-alone (not server based, named users), takes longer for cost analysis only?, schedule errors require cleanup to run

Open Plan (competitor to Pertmaster– Deltec - COBRA) – possible future rewrite – compatible with P6??

@ Risk (cost modeling)– Pro – more flexible (says so in brochure), works with MS Project,

     Con – no time phasing

Crystal Ball (cost modeling)– Pro – time phasing

Excel – can use for Monte Carlo analysis directly without add-on, good for simpler projects (70-100 WBS items),

SME

1. Resume Information Required:

    a. Years of Risk Management Experience

        i. Overall

        ii. DOE

        iii. Commercial

    b. Certifications

    c. Professional Organizations

    d. Specific DOE project or programs supported for risk assessments/risk management activities

    e. Degrees

    f. Specific areas of expertise

        i. Programs – setting up risk management programs, writing RMPs and procedures (know DOE)

        ii. Analyst – analyzing data – understand and communicate

        iii. Tool Driver- Monte Carlo risk analysis – cost and schedule

        iv. Facilitation – running risk workshops

        v. Training – developing and presenting risk management/analysis courses

        vi. special qualifications – risk-related

    g. Role – Federal, Prime Contractor, Consultant/Support Contractor

    h. Recommendation – by name and date

    i. Rate

    j. Availability; location

2. SME Criteria

    a. Demonstrated experience and success in DOE RM programs (e.g., EIR, ICE, IPR)

    b. Knowledge of latest DOE guidance

c. Recent recommendation(s) by Federal manager(s) – invite

d. Expert everyone wants to hire

e. JC-like; able to leap tall buildings in a single bound

f. SMEs in training – promising players

Names: Pete: Greg (check); Talk to IPR, EIR for recommendations

Potential Awards for Risk Managers – consider DOE award