



*Office of Management,
Office of Engineering and
Construction Management*

CostWorks Training

November 27, 2007



- Introduction
- Development Timeline
- CostWorks – Industry version
- CostWorks – DOE customized version



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CostWorks Development Timeline

	2001-02	2003	2004	2005
Development History	RSM starts model development. Delivers 51RPV models.	RSM demos CW. Pantex models added.	DOE purchases RSM CW program.	DOE receives CW release.
	2006	2007	2008	2009
Development History & Plans	RSM develops Sustainment Calculator. OSF models developed.	Enhancements proposed	Sustainment Portfolio Module with Graded Approach implemented.	Pantex models, OSF & Assemblies FM&R tasks added; Housing models Modified.



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CostWorks – Industry Version

- Industry version released 1997
- Used by construction, engineering and design professionals for estimating construction costs
- [Includes 74 standard building models](#)

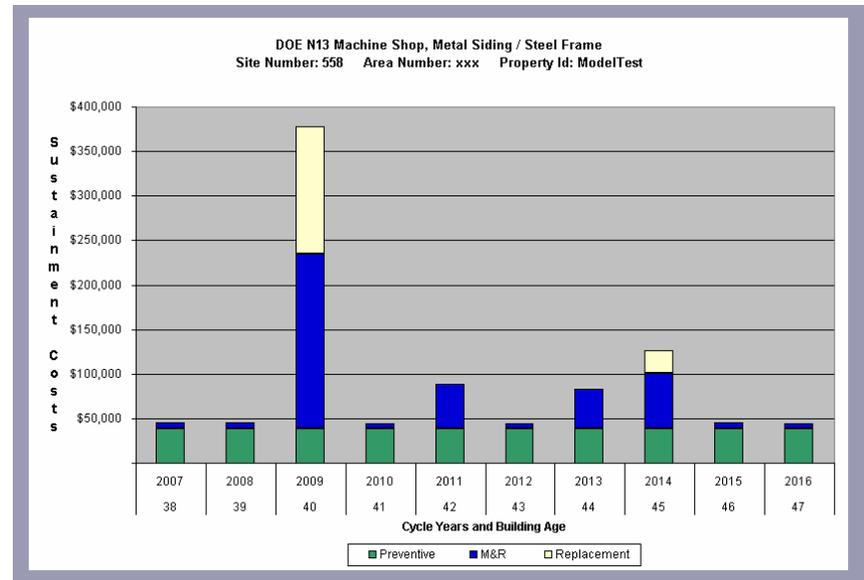




- DOE customized version released 2005
- Includes DOE RPV models and RSM standard models
- Includes OSF assemblies
- Designed based on site feedback (CAIS Users Group)
- Generates an RPV for export to FIMS
- Allows modification of models to replicate individual assets
 - Change footprint size, number of stories, type of construction, etc.
 - Add, remove or swap assemblies
- Adjusts costs by region
- Sustainment Calculator added in 2006 for TYSP reports
 - Assemblies are mapped to FM&R tasks to estimate Sustainment costs



- Introduction
- Settings Screen
- Navigation
- The CostList
- LUNCH
- Estimator –Introduction
- Sustainment Calculator
- Exercises





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Questions?



CostWorks – DOE Models Existing (E) Models

RS Means Standard Building Models

E1	Housing – Small	E21	Post Office/Mail Handling
E2	Housing – Large	E22	Recreation Center/Gym
E3	Auditorium/Meeting	E23	Retail Store
E4	Cafeteria/Dining	E24	Security/Badging
E5	Classroom-Small	E25	Warehouse/Storage (pre-engineered)
E6	Classroom-Medium	E26	Bank/Credit Union
E7	Fire Station	E27	Visitor Center
E8	Garage, Repair	E28	Office 1-story
E9	Hangar	E29	Warehouse, Mini
E10	Indoor Firing Range	E30	Assisted – Senior Living
E11	Office/Lab	E31	College, Dormitory, 2-3 Story
E12	Laundry	E32	College, Dormitory, 4-8 Story
E13	Library	E33	Fraternity/Sorority/Guest House
E14	Medical Facility/Clinic	E34	Apartment 1-3 Story
E15	Office-Small	E35	Apartment 4-7 Story
E16	Office-Medium	E36	Apartment 8-24 Story
E17	Office-Large	E37	Hotel 4-7 Story
E18	Parking Structure - Above Ground	E38	Hotel 8-24 Story
E19	Parking Structure - Below Ground	E39	Telephone Exchange



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CostWorks – DOE Models New (N) Models

<u>DOE Custom Building Models</u>			
N1	Bunkers/Magazines	N16	Process Bldg w/Pool
N2	Communication Center/Tele	N17	Process Bldg-Small
N3	Computer Center	N18	Process Bldg-Large
N4	Day Care Center	N19	Records Storage/Vault
N5	Explosives Handling	N21	Labs-Hard Eng (50/50)
N6	Hardened Storage	N22	Labs-Bio/Environmental (50/50)
N7	High-Bay Facility	N23	Labs-Chemistry (50/50)
N8	Labs-Hard Eng (80/20)	N24	Labs-Physics/Comp (50/50)
N9	Labs-Bio/Environmental (80/20)	N25	Labs-Test/Blast (50/50)
N10	Labs-Chemistry (80/20)	N30	Office with Atrium
N11	Labs-Physics/Comp (80/20)	N31	High Radiation Examination Lab
N12	Labs-Test/Blast (80/20)	N32	Multi-Purpose Facility - large
N13	Machine Shop	N33	Trailer, Real Property
N14	Maintenance Shops	N34	Accelerator – Ring
N15	Paint Shop	N35	Pump Station



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CostWorks – DOE Models New (N) Models

DOE Unique Building Models for Pantex

N36	SNM Component Staging Facility	N38	High Explosive Subassembly Facility
N37	Assembly Cell	N39	HE Machining Facility

DOE Custom "Other Structures & Facilities" (OSF) Plant Models

N40	Chilled Water Plant- 9,000T Centrifugal	N43	Steam Plant (Coal)
N41	Chilled Water Plant- 9,960T Absorption	N44	Steam Plant (Gas)
N42	Base Bldg. Steam Power Plant	N45	Steam Plant (Oil)
		N46	Generic Treatment Plant Support Building



- Sustainment is a major element in a good maintenance management program.
- It identifies the maintenance and repair activities necessary to keep the inventory of facilities in good working order.
- This includes regularly scheduled maintenance as well as anticipated major repairs or replacement of components that occur periodically over the expected service life of facilities.
- Sustainment Cost = M&R + Preventive + Replacement



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Sustainment Calculator Features

- DOE RPAM Order requires development of 10 Year Site Plans to include maintenance cost projections
- Initial interest came from NNSA sites (LLNL, NTS) to add sustainment to CostWorks
- Shows assemblies, individual tasks and total cost by year
- Customizable to replicate existing asset
 - Task frequency and cost can be modified
 - Age of building or building components can be modified
- Calculates sustainment from 1 to 100 years (default is 10 years)



CostWorks /Sustainment Diagram

CostWorks Sustainment Calculator Block Diagram

