



eCMS

Electronic Capital Management System



Agenda & Schedule

- Who is Downer EDi Mining?
- Overview of eCMS
- How it was built using Active Forms
- Lessons Learnt



Who is Downer EDi Mining?

- Been in Contract Mining for over 90 years
- Employ over 4000 employees
- More than 50 sites in Aust, NZ, PNG, South America and South Africa
- We deal in Open Cut and Underground Mining, Drill and Blast services, and Tyre Management
- We are part of the Downer Group
- Business parts are, Downer Australia, Downer New Zealand, Downer Mining, and Downer Rail



Overview of eCMS

- eCMS: **e**lectronic **C**apital **M**anagement **S**ystem
- eCMS is built in TM1 Cognos Express with Active Forms
- Deployed on the Web via Internet Explorer
- eCMS covers :
 - Capex Request
 - Approval – including email notification
 - Actual spend tracking
 - Forecasting



eCMS – The Process

1

Identify or Create
Capital Items

2

Create
Capex Request

3

Electronic
Approval
Process

4

Review Actuals

Match
Capital Items

Forecast Spend
by Item

Homepage



IBM Cognos Express Xcelerator



BUSINESS PERFORMANCE MANAGEMENT SYSTEM

Welcome

[Darren Gerding](#)

ELECTRONIC CAPITAL MANAGEMENT SYSTEM (eCMS)

(To be used in accordance with the procedure DM-FN-P21 Capital Expenditure)

The Current Period in eCMS is [October 2011](#)
Your Default Reporting Unit is [Mining - Qld Pacific Group](#)

Input Templates

[Capital Items](#)

[CEAR](#)

[- Capex \(Printable\)](#)

[- Plant Performance \(Printable\)](#)

[Set Approvals](#)

[Forecasting](#)

Reports

[Reporting Unit Summary](#)

[Business Unit Summary](#)

[CEAR Detail](#)

[Reporting Unit Forecast Summary](#)

[Business Unit Forecast Summary](#)



Capital Items Input Template

What is it used for?

- Identify items for your capex
- Create and Edit New items



Capital Items Input Template

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Homepage.xls Capital Items x

DOWNER EDI MINING ELECTRONIC CAPITAL MANAGEMENT SYSTEM

[Refresh](#) **CAPITAL ITEM INPUT TEMPLATE**
Capital Item Listing

Financial Year Items Created: 2011-12 [<- Create New Item](#) **Parameters for Itemising a Summary Item**
 Reporting Unit: (Default) [<- Create Summary Item](#) [Itemise Summary Item -->](#)
 Project No and Name: 0000
 Tender / Budget: All
 Category: All
 Asset Class: All
 Total \$ Amount for New / Summary Item: 0

Project	Capital Item Number	Financial Year Created	Tender / Budget	Tender Ref.	Asset Class Code	Asset Class	Capital Item Description	Capital Item Type	Capital Item Category	Fixed Capital Investment Type	CEAR. Item No	Turn Key Date
4828 Millenium Coal	000002	2011-12	Budget		800	Component Capitalisation	Component Capitalisation	BU	Component Capitalisation	RFCI		
	000167	2011-12	Budget		003	Off Highway Trucks	Major Plant Replacement 785B Dump Truck Caterpillar Asset	Item	Capital	RFCI		
	000179	2011-12	Budget		021	Minor plant	Minor Plant Replacement Generator 30KVA FG Wilson Asset	Item	Capital	RFCI		
	000180	2011-12	Budget		021	Minor plant	Minor Plant Replacement Pump 8 inch Legra Asset Item Nu	Item	Capital	RFCI		
	000181	2011-12	Budget		019	Light Vehicles	Minor Plant Replacement Utility Toyota Workmate Asset Item	Item	Capital	RFCI		
	000182	2011-12	Budget		019	Light Vehicles	Minor Plant Replacement S/Wagon Prado GX 3.0L Asset Item	Item	Capital	RFCI		
	000183	2011-12	Budget		019	Light Vehicles	Minor Plant Replacement S/Wagon Prado GX Toyota Asset It	Item	Capital	RFCI		
	000184	2011-12	Budget		019	Light Vehicles	Minor Plant Replacement S/Wagon Prado GXL Toyota Asset	Item	Capital	RFCI		
	000242	2011-12	Budget		003	Off Highway Trucks	Operating Lease Purchases 789C Dump Truck Caterpillar SH	Item	Capital	RFCI		
	000243	2011-12	Budget		003	Off Highway Trucks	Operating Lease Purchases 789C Dump Truck Caterpillar SH	Item	Capital	RFCI		
	000758	2011-12	New		054	Safety equipment	1 of 8 Diagonal Access Systems for Cat 785 Rear Dump	Item	Capital	IFCI	00033.01	
	000759	2011-12	New		054	Safety equipment	2 of 8 Diagonal Access Systems for Cat 785 Rear Dump	Item	Capital	IFCI	00033.02	
	000760	2011-12	New		054	Safety equipment	3 of 8 Diagonal Access Systems for Cat 785 Rear Dump	Item	Capital	IFCI	00033.03	
	000761	2011-12	New		054	Safety equipment	4 of 8 Diagonal Access Systems for Cat 785 Rear Dump	Item	Capital	IFCI	00033.04	
	000762	2011-12	New		054	Safety equipment	5 of 8 Diagonal Access Systems for Cat 785 Rear Dump	Item	Capital	IFCI	00033.05	
	000763	2011-12	New		054	Safety equipment	6 of 8 Diagonal Access Systems for Cat 785 Rear Dump	Item	Capital	IFCI	00033.06	
	000764	2011-12	New		054	Safety equipment	7 of 8 Diagonal Access Systems for Cat 785 Rear Dump	Item	Capital	IFCI	00033.07	
	000765	2011-12	New		054	Safety equipment	8 of 8 Diagonal Access Systems for Cat 785 Rear Dump	Item	Capital	IFCI	00033.08	
4861 Norwich Park - Aug 10 Cont	000003	2011-12	Budget		800	Component Capitalisation	Component Capitalisation	BU	Component Capitalisation	RFCI		



Capex Input Template

What is it used for?

- Create new capex
- Edit or cancel an existing request
- Lodge a request to the eCMS Administrator
- Review current status



Capex Input Template

IBM Cognos Express Xcelerator dagerdin Home About eCMS Documents Folder

Homepage.xls Capital Items x CEAR x

DOWNER EDI MINING ELECTRONIC CAPITAL MANAGEMENT SYSTEM

CAPITAL EXPENDITURE APPLICATION REQUEST INPUT TEMPLATE
Capital Expenditure Application Request (CEAR) Listing

Refresh

Financial Year: 2011-12 Select Capital Request Create New Capital Request
 Reporting Unit: Mining - Qld Pacific Group
 Status: All
 Project No:
 Capital Request No:

CAPITAL EXPENDITURE APPLICATION REQUEST SUMMARY

Project	Capital Request Number	Request Creation Date	FY CEAR Created	Status	Request Description	Item QTY	Budget Item QTY	Tender Item QTY	Foreign Currency Exposure	Requested Amount	Requested Amount Current FY	Requested Amount Future FYs	Created By User
4828 Millenium Coal	C00033	29/07/2011	2011-12	Approved	8x Diagonal Access Systems for Cat 785 Rear	8	0	0		296,262	296,262	0	Craig Mehrtens
	C00155	16/11/2011	2011-12	Approved	Truck Boilmaker Isuzu NPR300	1	0	0		86,108	86,108	0	Andre Wium
4861 Norwich Park - Aug 10 Contract	C00003	5/07/2011	2011-12	Approved	2 x APB mobile Crib Rooms	2	0	0		280,305	280,305	0	Chander Swaminatha
	C00021	19/07/2011	2011-12	Approved	3 x 45,000 & 1 x 24,000 Ltr Water Tanks	4	0	0		18,000	18,000	0	Craig Mehrtens
	C00025	21/07/2011	2011-12	Approved	Conversion to Service Truck of Existing Asset	1	0	0		667,662	667,662	0	Craig Mehrtens
	C00034	3/08/2011	2011-12	Approved	Demolition Hammer GSH27	1	0	0		2,840	2,840	0	Craig Mehrtens
	C00041	8/08/2011	2011-12	Approved	P&H Float (pre eCMS Capex #1750) - Residual	1	0	0		1,766,000	1,766,000	0	Craig Mehrtens
	C00120	12/08/2011	2011-12	Approved	3x Isuzu FSS 26 Seater 4WD mine site coach	3	0	0		413,000	413,000	0	Craig Mehrtens
	C00131	5/09/2011	2011-12	Approved	1 x Isuzu Service Truck + 1x Bard Service	1	0	0		333,657	333,657	0	Craig Mehrtens
	C00136	14/09/2011	2011-12	Approved	LV replacement - #27714 => ISUZU DMax SX	1	0	0		61,000	61,000	0	Craig Mehrtens
	C00141	22/09/2011	2011-12	Cancelled	1x Trans Tank Refuelling Station	0	0	0		503,207	503,207	0	Craig Mehrtens
	C00143	22/09/2011	2011-12	Approved	GPS Equipment for 9x Items of Plant as Within	9	0	0		747,250	747,250	0	Craig Mehrtens
	C00144	6/10/2011	2011-12	Approved	Dysart Light Vehicle Workshop Fit-Out	9	0	0		182,370	182,370	0	Craig Mehrtens
	C00145	10/10/2011	2011-12	Approved	Simulator - AES Pro Transportable Base	1	0	0		464,713	464,713	0	Craig Mehrtens
	C00159	16/11/2011	2011-12	Approved	14H Grader Caterpillar S/H	1	0	0		177,214	177,214	0	Andre Wium
	C00164	16/11/2011	2011-12	Approved	D10R Dozer Caterpillar	1	0	0		953,641	953,641	0	Andre Wium
C00165	16/11/2011	2011-12	Approved	Workshop Tooling - Various	1	0	0		1,229,401	1,229,401	0	Andre Wium	
4862 Goonyella - Aug 10 Contract	C00009	6/07/2011	2011-12	Approved	Fitment of upgraded mirrors on th off-side of K	32	0	0		166,659	166,659	0	Chander Swaminatha
	C00010	6/07/2011	2011-12	Approved	Refurbishment and FRCP of 14t Franna Crane	1	0	0		101,292	101,292	0	Chander Swaminatha
	C00026	21/07/2011	2011-12	Approved	APS Machine Guidance Project - Installation of	14	0	0		820,802	820,802	0	Craig Mehrtens



Forecast Input Template

What is it used for?

- Review Actuals
- Edit Forecast

Forecast Input Template



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Homepage.xls Forecasting x [Base]

DOWNER EDI MINING ELECTRONIC CAPITAL MANAGEMENT SYSTEM

CAPITAL EXPENDITURE FORECAST INPUT TEMPLATE
Forecast Input for a Project / Business Unit

Financial Year: 2011-12 TEST
Project/BU Number and Name: 4828 Millenium Coal
Project/BU Forecast Type: Budget

Capex No	Capex Item	Capital Item	Description	Actuals Jul 2011	Actuals Aug 2011	Actuals Sep 2011	Forecast Oct 2011	Forecast Nov 2011	Forecast Dec 2011	Forecast Jan 2012	Forecast Feb 2012	Forecast Mar 2012	Forecast Apr 2012	Forecast May 2012	Forecast Jun 2012	Actual/Forecast 2011-12	
ALL FORECAST TYPES				(6,690,796)	(1,571,320)	213,175	1,750,000	0	23,999	1,399,000	1,155	0	500,000	1,050,000	1,198,539	(1,062,200)	
Hire Sub Contractor and Client Fixed Assets				0	0	0	0	0	0	0	0	0	0	0	0	0	
MER and Component Capitalisation Fixed Assets				472,864	597,195	213,175	0	0	0	0	0	0	0	0	0	0	1,283,033
IT Fixed Assets				0	377	0	0	0	0	0	0	0	0	0	0	0	377
CEARs Not Yet Approved				0	0	0	0	0	0	0	0	0	0	0	0	0	0
CEARs Approved				0	0	0	1,750,000	0	0	1,355,000	1,155	0	500,000	1,050,000	175,083	4,831,238	
00112	01	000803	Test for Budget only CI match	0	0	0	0	0	0	0	0	100,000	0	50,000	0	150,000	
	02	000827	Test for Tender only CI match	0	0	0	0	0	0	0	0	0	50,000	0	0	50,000	
	03	000801	Test for Budget & Tender CI matc	0	0	0	0	0	0	0	0	0	1,000,000	0	0	1,000,000	
	04	000809	Test for Budget & Tender CI matc	0	0	0	0	0	0	0	0	0	0	125,000	0	125,000	
00120	01	000806	Item 01	0	0	0	1,750,000	0	0	1,250,000	917	0	400,000	0	83	3,401,000	
00244	01	002676	Water Truck	0	0	0	0	0	0	100,000	238	0	0	0	0	100,238	
	02	002604.1	Other	0	0	0	0	0	0	5,000	0	0	0	0	0	5,000	
Budget Capital Items				0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tender Capital Items				0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Capital Items				0	0	0	0	0	23,999	44,000	0	0	0	0	1,023,456	1,091,455	
No Capex No	01	002532	Test Day 0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		002553.1	Test on 30/05/11	0	0	0	0	0	0	10,000	0	0	0	0	0	10,000	
		002553.2	Test on 30/05/11.	0	0	0	0	0	0	0	0	0	0	22,000	0	22,000	
		002553.Fcast		0	0	0	0	0	0	34,000	0	0	0	(22,000)	0	12,000	
		002603	Test on 30/05/11	0	0	0	0	0	0	0	0	0	0	0	0	0	
		002604.2		0	0	0	0	0	0	0	0	0	0	1,000	0	1,000	
		002604.Fcast		0	0	0	0	0	(2,000)	0	0	0	0	(1,000)	0	(3,000)	
		002651	Test on 22/6/2011 nnnn	0	0	0	0	0	25,999	0	0	0	0	0	0	25,999	
		003132		0	0	0	0	0	0	0	0	0	0	750,000	0	750,000	
		003134		0	0	0	0	0	0	0	0	0	0	123,456	0	123,456	
		003145		0	0	0	0	0	0	0	0	0	0	150,000	0	150,000	
Pre eCMS Capex and Unknown Fixed Assets				(6,813,158)	(1,408,887)	0	0	0	0	0	0	0	0	0	0	(8,222,045)	
Capital WIP Expenditure				683,738	(720,005)	0	0	0	0	0	0	0	0	0	0	0	(36,267)
Disposal Proceeds (incl Sale and Leaseback)				0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finance Leased Fixed Assets				0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital Trade Creditors Adjustment				0	0	0	0	0	0	0	0	0	0	0	0	0	0
eCMS LV Actual Reversal				0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hyperion vs JDE Variance for Balance Sheet Capex				0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hyperion vs JDE Variance for Cash Capex				0	0	0	0	0	0	0	0	0	0	0	0	0	0

Done Local intranet 100%



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Active Forms

What is it?

A “dynamic” Slice...

Cube Viewer: cxmd_test -> CM Forecast -> AW1_UserGroup_20111206 [Private]

File Edit View Options Help

AW1_UserGroup_20111206 [Base]

Amount Forecast 4849 Goony Active Form

4b - CEARs Approved No Fixed Asset

			Period							
AW1_UserGroup_20	CM_CEAR_Items	AW1_UserGroup_2	-- 2011-12	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Jan 2012
00248	02	002759	2,825,000.00	0.00	0.00	0.00	100,000.00	0.00	2,525,000.00	0.00
00251	01	003084	250,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
00252	01	002764	3,571,147.00	0.00	0.00	0.00	500,000.00	500,000.00	571,147.00	0.00
00255	01	002775.1	11,250.00	0.00	0.00	0.00	1,250.00	1,250.00	1,250.00	1,250.00
	02	002775.2	11,250.00	0.00	0.00	0.00	1,250.00	1,250.00	1,250.00	1,250.00
	03	002775.3	11,250.00	0.00	0.00	0.00	1,250.00	1,250.00	1,250.00	1,250.00
	04	002775.4	11,250.00	0.00	0.00	0.00	1,250.00	1,250.00	1,250.00	1,250.00
	05	002775.5	11,250.00	0.00	0.00	0.00	1,250.00	1,250.00	1,250.00	1,250.00
00257	01	002778	375,500.00	0.00	0.00	0.00	41,500.00	41,500.00	41,500.00	41,500.00
	03	002788	75,000.00	0.00	0.00	0.00	25,000.00	0.00	25,000.00	0.00
00328	01	002779	25,000.00	0.00	0.00	0.00	0.00	0.00	0.00	10,000.00



Active Forms

... that features TM1 worksheet functions to define the components of the view, the dynamic row set, and formatting

	B	C	D	E	F	G	H	I	J	K	L
10											
11	CM_Forecast_Values	Amount									
12	CM_Version	Forecast									
13	CM_Organisation	4849 Goonyella Prestrip									
14	CM_Forecast_Type	4b - CEARs Approved									
15	CM_Fixed_Asset	No Fixed Asset									
16											
17											
18											
19	00248	02	002759	2825000	0	0	0	100000	0	2525000	0
20	00251	01	003084	250000	0	0	0	0	0	0	0
21	00252	01	002764	3571147	0	0	0	500000	500000	571147	0
22	00255	01	002775.1	11250	0	0	0	1250	1250	1250	1250
23		02	002775.2	11250	0	0	0	1250	1250	1250	1250
24		03	002775.3	11250	0	0	0	1250	1250	1250	1250
25		04	002775.4	11250	0	0	0	1250	1250	1250	1250
26		05	002775.5	11250	0	0	0	1250	1250	1250	1250
27	00257	01	002778	375500	0	0	0	41500	41500	41500	41500
28		03	002788	75000	0	0	0	25000	0	25000	0
29	00328	01	002779	25000	0	0	0	0	0	0	10000
30											



Active Forms

Excel interface showing a table with a highlighted 'Format Area' (rows 2-8) and a 'Manually unhide row' (row 9). The table contains data for CM Forecast Values across various months from 2011 to 2012.

				2011-12	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012
19	N	00248	02	002759	2825000	0	0	100000	0	2525000	0	100000	0	100000	0	0
20	N	00251	01	003084	250000	0	0	0	0	0	0	0	0	0	0	250000
21	N	00252	01	002764	3571147	0	0	500000	500000	571147	0	0	0	500000	0	1500000
22	N	00255	01	002775.1	11250	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
23	N		02	002775.2	11250	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
24	N		03	002775.3	11250	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
25	N		04	002775.4	11250	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
26	N		05	002775.5	11250	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
27	N	00257	01	002778	375500	0	0	41500	41500	41500	41500	41500	41500	41500	41500	43500
28	N		03	002788	75000	0	0	25000	0	25000	0	25000	0	0	0	0
29	N	00328	01	002779	25000	0	0	0	0	0	10000	10000	5000	0	0	0



Active Forms

Why use it?

- Downer Mining users don't use cube views
- Traditional Excel reports pulled in "all values" from a cube
- Front-end Excel functionality (formulas/macros) used to filter data
- Active Forms does all the filtering in the cube views
 - Substantial improvement in efficiency and performance



Active Forms

A few things to be aware of...

- Excel macros don't work in Web
- Excel "custom" data validation not supported in Web
- Define data validation message titles
- Don't change "Active Form" DBRWs to DBRs
- Exporting to PDF is problematic when SUBNM functions are used
- Freeze pane column/row misalignment resolved upon Refresh of page



Active Forms

Highly Configurable and Dynamic

DOWNER EDI MINING

ELECTRONIC CAPITAL MANAGEMENT SYSTEM
CAPITAL EXPENDITURE FORECAST INPUT TEMPLATE
 Forecast Input for a Project / Business Unit

Refresh

Financial Year: 2011-12
 Project/BU Number and Name: 0000 Enter a Project number TEST

Capex No	Capex Item	Capital Item	Condition	Actuals Jul 2011	Actuals Aug 2011	Actuals Sep 2011	Forecast Oct 2011	Forecast Nov 2011	Forecast Dec 2011	Forecast Jan 2012	Forecast Feb 2012	Forecast Mar 2012
ALL FORECAST TYPES												
	Hire Sub Contractor and Client Fixed Assets		X									
	MER and Component Capitalisation Fixed Assets											
	IT Fixed Assets											
	CEARs Not Yet Approved		X									
	CEARs Approved		X									
	Budget Capital Items		X									
	Tender Capital Items		X									
	New Capital Items		X									
	Pre eCMS Capex and Unknown Fixed Assets											
	Capital WIP Expenditure											
	Disposal Proceeds (incl Sale and Leaseback)											
	Finance Leased Fixed Assets											
	Intercompany Transfers		X									
	Capital Trade Creditors Adjustment											
	eCMS LV Actual Reversal											
	Hyperion vs JDE Variance for Balance Sheet Capex											
	Hyperion vs JDE Variance for Cash Capex											

Helper message: Enter the Project/BU number only. E.g. 475 (for Commodore)

`{TM1SORT({FILTER({TM1FILTERBYLEVEL({TM1SUBSETALL([CM_Capex_No])}, 0)}, [CM_Capex_No].[Status] = "Drafted" OR [CM_Capex_No].[Status] = "Lodged" OR [CM_Capex_No].[Status] = "Submitted"}), ASC)}`



Active Forms

Top Ten Tips *Provided by Tridant, and Downer Mining agrees wholeheartedly*

1. Change/delete any Named references or cell formulas with #Ref in them, and check for external links and change/delete

6	D						
7	N						
8		[End Format Range]					
9		cxmd_test:CM Forecast:1					
10							
11		CM_Forecast_Values	Amount				
12		CM_Version	Forecast				
13		CM_Organisation	4849 Goonyella Prestrip				
14		CM_Forecast_Type	4b - CEARs Approved				
15		CM_Fixed_Asset	No Fixed Asset				
16		Period	#REF!				
17							
18				2011-12	Jul 2011	Aug 2011	
19	N	00248	02	002759	2825000	0	
20	N	00251	01	003084	250000	0	

Define Name

Names in workbook:

- rngServerName
- rngPeriod
- rngServerName
- TM1REBUILDOPTION
- TM1RPTDATARNG1 Sheet1
- TM1RPTFMIDCOL Sheet1
- TM1RPTFMTRNG Sheet1

Refers to:

=Sheet1!#REF!

Buttons: OK, Close, Add, Delete



Active Forms

Top Ten Tips

2. Delete any unused columns or rows. Use the slider as an indicator as to how many rows/columns are saved with the sheet (or End, Home keys)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1		[Begin Format Range]																				
2	0																					
3	1																					
4	2																					
5	3																					
6	D																					
7	N																					
8		[End Format Range]																				
9		cxmd_test:CM Forecast:1																				
10																						
11		CM_Forecast_Values	Amount																			
12		CM_Version	Forecast																			
13		CM_Organisation	4849 Goonyella Prestrip																			
14		CM_Forecast_Type	4b - CEARs Approved																			
15		CM_Fixed_Asset	No Fixed Asset																			
16		Period	#REF!																			
17																						
18																						
19	N	00248	02	002759	2825000	0	0	0	100000	0	2525000	0	100000	0	100000	0	0					
20	N	00251	01	003084	2500000	0	0	0	0	0	0	0	0	0	0	0	250000					
21	N	00252	01	002764	3571147	0	0	0	500000	500000	571147	0	0	0	500000	0	1500000					
22	N	00255	01	002775.1	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250					
23	N		02	002775.2	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250					
24	N		03	002775.3	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250					
25	N		04	002775.4	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250					
26	N		05	002775.5	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250					
27	N	00257	01	002778	375500	0	0	0	41500	41500	41500	41500	41500	41500	41500	41500	43500					
28	N		03	002788	75000	0	0	0	25000	0	25000	0	25000	0	0	0	0					
29	N	00328	01	002779	25000	0	0	0	0	0	10000	10000	5000	0	0	0	0					
30																						
31																						
32																						
33																						
34																						
35																						
36																						
37																						
38																						
39																						
40																						

} Unused space



Active Forms

Top Ten Tips

3. Avoid or keep SUBNM and ELCOMP formulas to a minimum

C13		fx =SUBNM("cxmd_test:CM_Organisation","Default","4849","Description (Alias)")									
	A	B	C	D	E	F	G	H	I	J	
1		[Begin Format Range]									
2	0										
3	1										
4	2										
5	3										
6	D										
7	N										
8		[End Format Range]									
9		cxmd_test:CM Forecast:1									
10											
11		CM_Forecast_Values	Amount								
12		CM_Version	Forecast								
13		CM_Organisation	4849 Goonyella Prestrip								
14		CM_Forecast_Type	4b - CEARs Approved								



Active Forms

Top Ten Tips

- Any lookups to cube that are used in other formulas need to be a DBR rather than DBRW

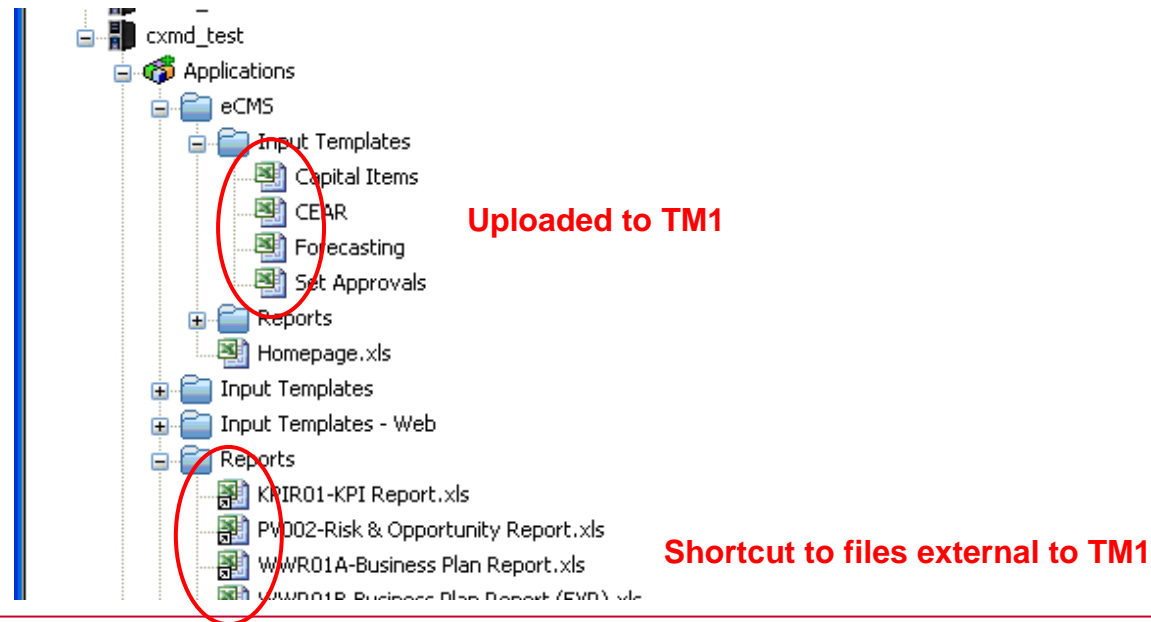
	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
9	cxmd_test:CM Forecast:1														
10															
11	CM_Forecast_Values	Amount													
12	CM_Version	Forecast													
13	CM_Organisation	4849 Goonyella Prestrip													
14	CM_Forecast_Type	4b - CEARs Approved													
15	CM_Fixed_Asset	No Fixed Asset													
16	Other cube	cxmd_test:CM CEAR													
17															
18															
19	00248	02	002759	Approved	2825000	0	0	0	100000	0	2525000	0	100000	0	100000
20	00251	01	003084	Approved	250000	0	0	0	0	0	0	0	0	0	0
21	00252	01	002764	Completed	3571147	0	0	0	500000	500000	571147	0	0	0	500000
22	00255	01	002775.1	Approved	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250
23		02	002775.2	Approved	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250
24		03	002775.3	Approved	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250
25		04	002775.4	Approved	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250
26		05	002775.5	Approved	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250
27	00257	01	002778	Approved	375500	0	0	0	41500	41500	41500	41500	41500	41500	41500
28		03	002788	Approved	75000	0	0	0	25000	0	25000	0	25000	0	0
29	00328	01	002779	Approved	25000	0	0	0	0	0	0	10000	10000	5000	0
30															



Active Forms

Top Ten Tips

6. Workbooks perform best when uploaded to TM1 Server (copied to TM1 server through Add File route), subsequent navigation options via action buttons should then have “Look In: TM1 Applications” selected



Active Forms



Action Button Properties

TM1 Server
=rngtm1server
 Use Reference Disconnect

Action

Run a Turbo Integrator Process
 Go to another Worksheet
 Run a Process, then go to a Worksheet
 Calculate / Rebuild Only

Calculate Process **Worksheet** Appearance

Look In:
 TM1 Applications Files Browse...

Workbook:
=rngtabfname

Sheet:
CRH

Match Title Elements
 Replace Current Workbook

Calculation
 Automatically Recalculate Sheet
 Rebuild Sheet
 None

Advanced Options...

OK Cancel



Active Forms

Top Ten Tips

- Try to minimise the number of worksheets in a workbook. We have found some workbook open errors when more than 7 or 8 worksheets are involved.

				2011-12	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012
19	00248	02	002759	2625000	0	0	0	100000	0	2525000	0	100000	0	100000	0	0
20	00251	01	003084	250000	0	0	0	0	0	0	0	0	0	0	0	250000
21	00252	01	002764	3571147	0	0	0	500000	500000	571147	0	0	0	500000	0	1500000
22	00255	01	002775.1	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
23		02	002775.2	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
24		03	002775.3	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
25		04	002775.4	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
26		05	002775.5	11250	0	0	0	1250	1250	1250	1250	1250	1250	1250	1250	1250
27	00257	01	002778	375500	0	0	0	41500	41500	41500	41500	41500	41500	41500	41500	43500
28		03	002788	75000	0	0	0	25000	0	25000	0	25000	0	0	0	0
29	00328	01	002779	25000	0	0	0	0	0	0	10000	10000	5000	0	0	0
30																
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Active Forms

Top Ten Tips

8. Try not to use Action buttons formatted as hyperlinks

The screenshot shows a software interface with a table and two buttons. A red arrow points from the 'Create New Capital Request' button to the 'Action Button Properties' dialog box. The dialog box shows settings for the button, including 'Run a Turbo Integrator Process' and 'Display as Hyperlink' checked.

Table: CAPITAL EXPENDITURE APPLICATION REQUEST SUMMARY

Request Description	Item QTY	Budget Item QTY	Ten Item QTY

Action Button Properties

TM1 Server: =rngTM1Server

Use Reference

Action:

- Run a Turbo Integrator Process
- Go to another Worksheet
- Run a Process, then go to a Worksheet
- Calculate / Rebuild Only

Calculate | Process | Worksheet | **Appearance**

Caption: Create New Capital Request

Show Background Image:

Display as Hyperlink

Preview: [Create New Capital Request](#)

Colors: Text, Background

OK | Cancel



Active Forms

Top Ten Tips

- Don't use dynamic named ranges, i.e. ranges that are not visible to objects within the workbook

	2011-12	Jul 2011	Aug 2011	Sep 2011	Oct 2011	Nov 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012	Apr 2012	May 2012	Jun 2012
002759	2825000	0	0	0	100000	0	2525000	0	100000	0	100000	0	0
003084	250000	0	0	0	0	0							
002764	3571147	0	0	0	500000	500000	571						
002775.1	11250	0	0	0	1250	1250	1						
002775.2	11250	0	0	0	1250	1250	1						
002775.3	11250	0	0	0	1250	1250	1						
002775.4	11250	0	0	0	1250	1250	1						
002775.5	11250	0	0	0	1250	1250	1						
002778	375500	0	0	0	41500	41500	41						
002788	75000	0	0	0	25000	0	25						
002779	25000	0	0	0	0	0							

Define Name ✖

Names in workbook:

- rngDynamic
- rngDynamic
- rngPeriod
- rngServerName
- TM1REBUILDOPTION
- TM1RPTDATARNG1
- TM1RPTFMTIDCOL
- TM1RPTFMRNG

Sheet1
Sheet1
Sheet1

Refers to:

=OFFSET(Sheet1!\$E\$18,0,0,1,COUNTA(Sheet1!\$E\$18:\$V\$18))



Active Forms

Top Ten Tips

10. Use named ranges in action button properties rather than cell references e.g. use **=rngTM1Server** in stead of **= 'Sheet1' \$A\$1**

The screenshot shows the 'Action Button Properties' dialog box with the 'Process' tab selected. The 'Process' dropdown is set to 'CM_New_Capex_No'. The 'Parameters' table is highlighted with a red circle.

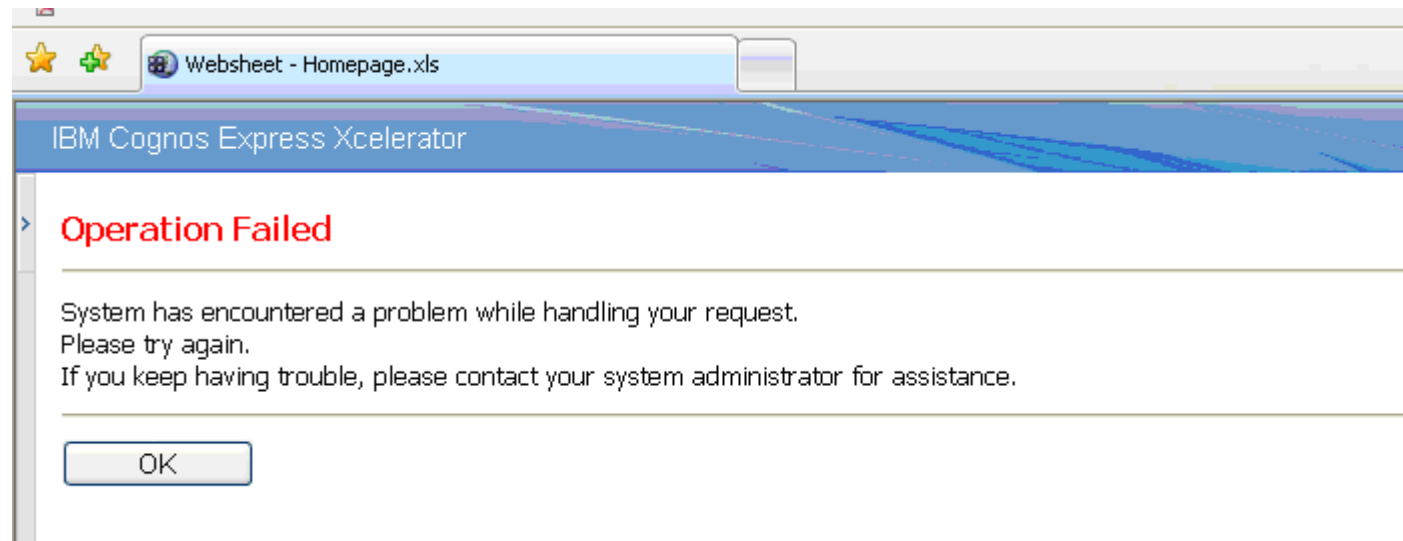
Name	Value
pOrganisation	=rngProjNoSel
pFinYear	=rngmenuFYsel



Active Forms

Another Top Tip...

Regularly publish and test your Active Form in web!





Active Forms

A Last Top Tip...

Use the “fx” function builder in Excel to construct your Active Form functions, especially the TM1RPTROW() function

Function Arguments

TM1RPTROW

Reference	<input type="text" value="\$B\$9"/>	= "cxmd_test:CM Fore
dimension	<input type="text" value='"cxmd_test:CM_Capex_No"'/>	= "cxmd_test:CM_Cap
Subset	<input type="text" value='"AW1_UserGroup_20111206"'/>	= "AW1_UserGroup_20
subelements	<input type="text"/>	=
alias	<input type="text"/>	=
exabove	<input type="text"/>	=
mdx	<input type="text"/>	=
indent	<input type="text"/>	=
drill	<input type="text"/>	=

= ""

Sets the Active Form master row definition. The master row definition governs the behavior of all rows in the Active Form.

alias A string that defines the alias used for the subset. When this argument is supplied, it overrides the default alias property defined by the subset

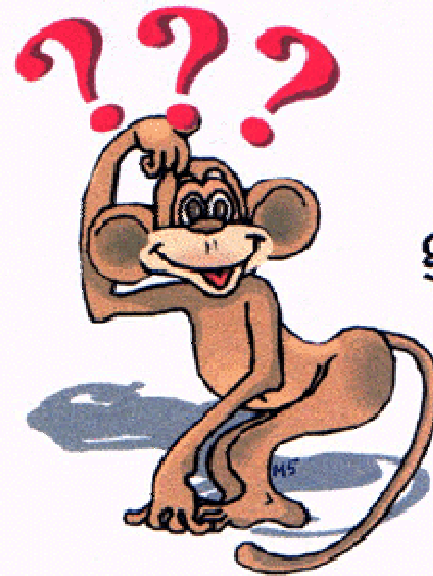
Formula result =

[Help on this function](#)

OK Cancel



Finally, Any Questions?



Questions
are
guaranteed in
life;
Answers
aren't.