OSIsoft Regional Seminar Series

Johannesburg, South Africa

23 February 2012

Presentation Title

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Anglo American Platinum

Real Time Information – Currency of the New Decade

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Outline

- Introduction
- Anglo American Platinum
- PI systems
- Reporting using AF
- PI Tools used
- Future developments
- Questions

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Anglo American Platinum

Anglo American Platinum is the world's premier PGM producer, supplying approximately 40% of the world's newly refined Platinum.

Process Division:

- 14 Concentrators
- 3 Smelters
- 1 Converter
- 2 Refineries
- 9 geographic operational areas

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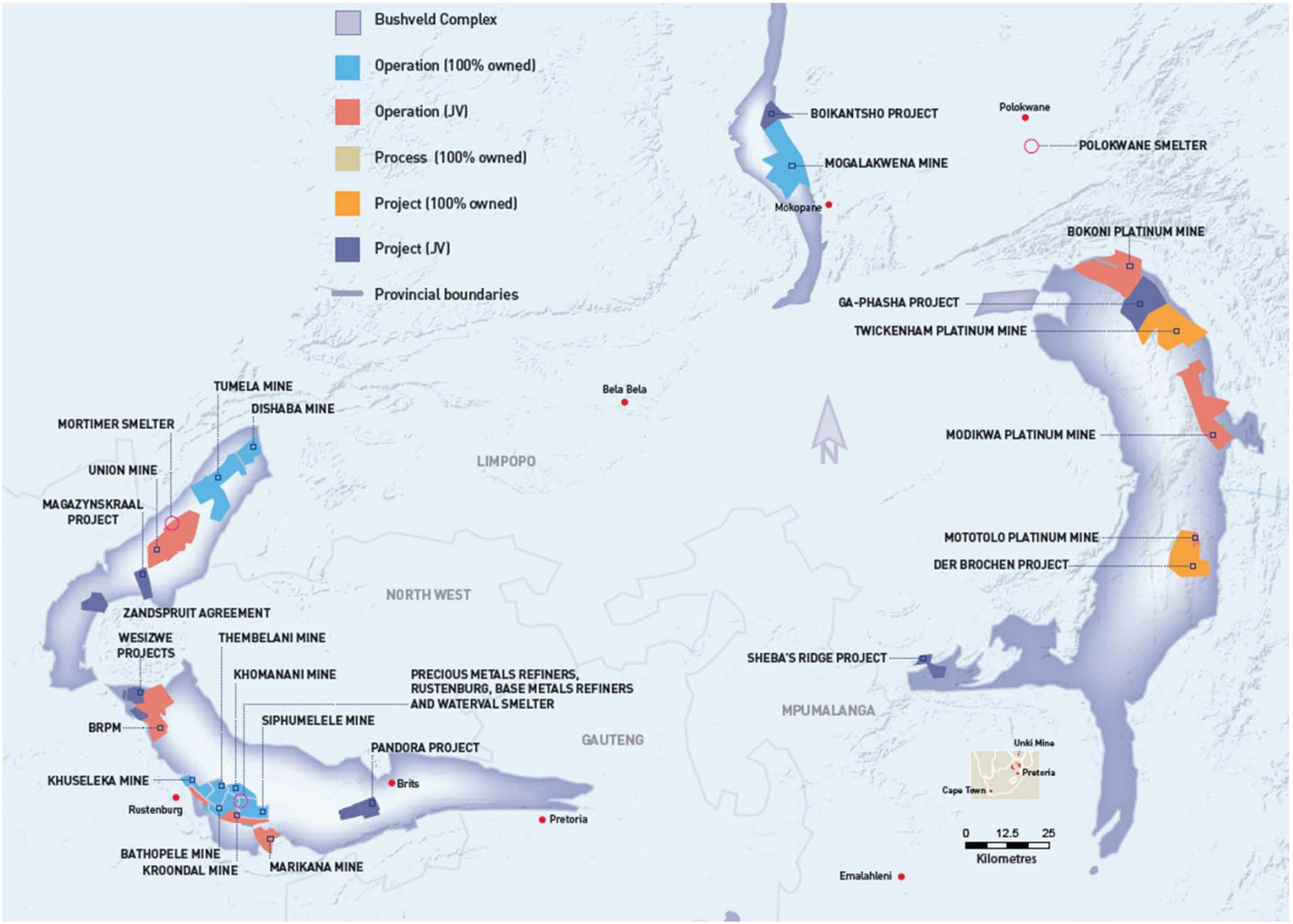
Anglo American Platinum



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Amplats PI Systems

- 9 Pi server
- Enterprise license

- **Per site**
  - PI server
  - Application server
    - ACE
    - AF
  - SQL Database server
  - IIS server
    - Coresight
    - Custom web applications

- **Clients**
  - Datalink
  - Web Parts
  - Process book
  - Coresight (rolling out)

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Reporting From AF

- Old - Excel Web Access Production Reports
  - 10 Reports with: 1 front end and 1 configuration per report
  - Cumbersome
  - Sensitive to changes
  - Slow to render
  - High maintenance

- New AF and Microsoft Reporting Services Reports
  - 1 report front end for all sites
  - Configure Reports in AF
  - Standardized
  - Can be cached to load quickly
  - Better Backups

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Tools used

OSISoft Tools

- PI server
  - PISDK
- AF
  - AFSDK
  - AF Builder Excel Addin
- OLEDB ENTERPRISE

Other Tools

- Microsoft SQL Server
- Microsoft Reporting Services

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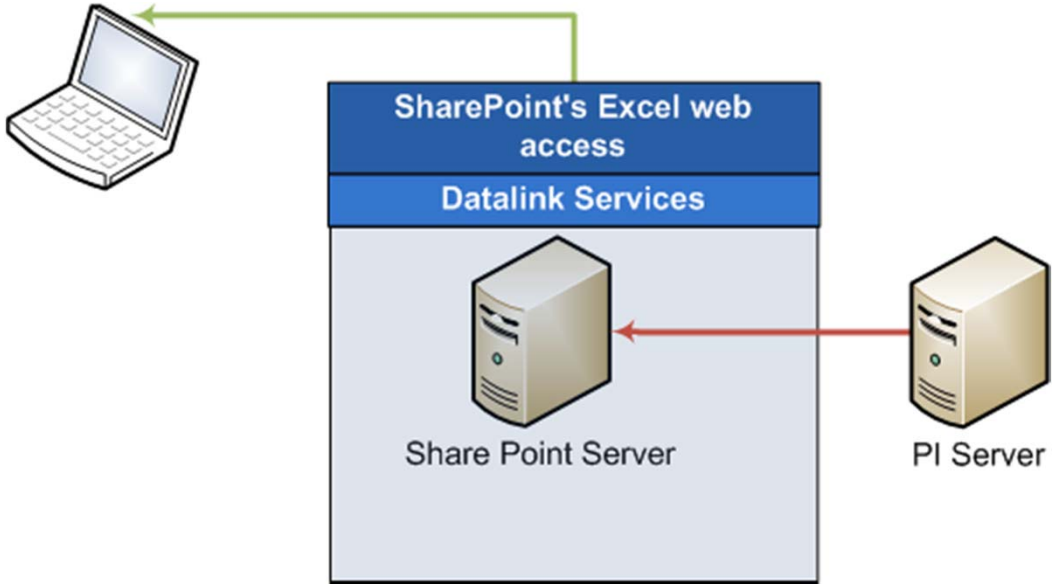
Old - Report Architecture



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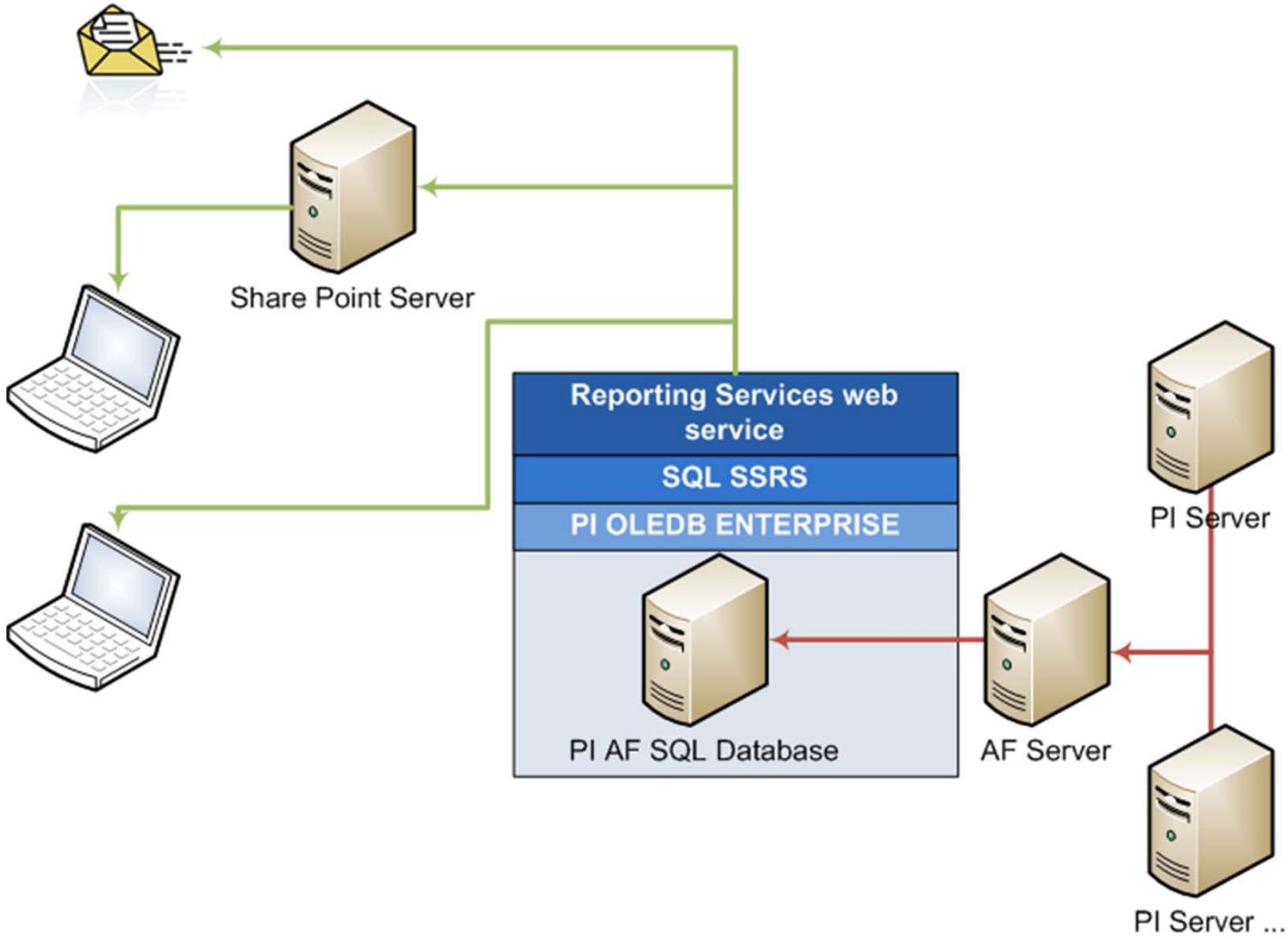
Report Architecture



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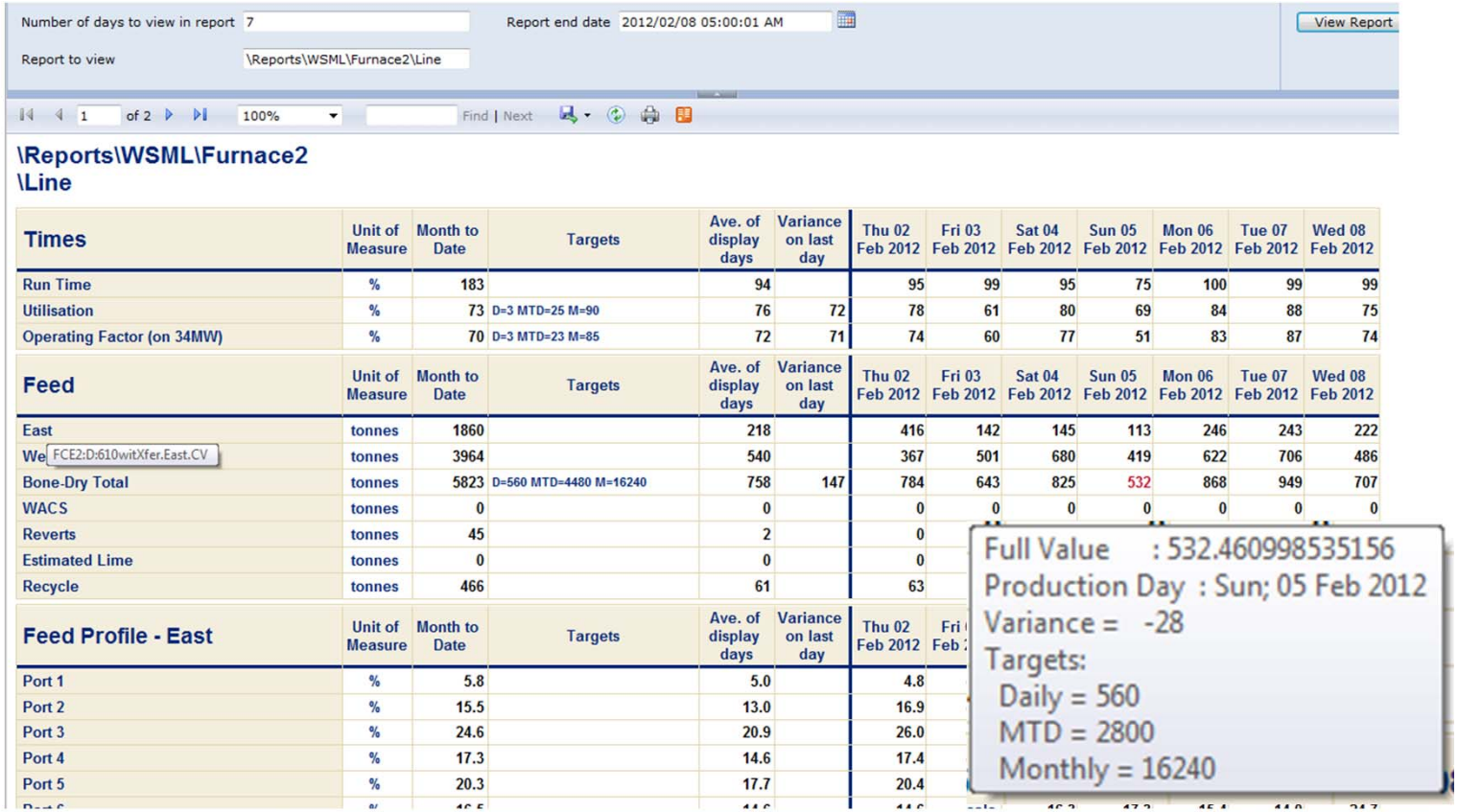
Report

Data URL to Pi-adhoc trend

Tool tip for daily details

Tools tip for tag name etc.

Linked to edit Targets



Feed	Unit of Measure	Month to Date	Targets	Ave. of display days	Variance on last day	Thu 02 Feb 2012	F
East	tonnes	1860		218		416	
West	tonnes	3964		540		367	
Bone-Dry Total	tonnes	5823	D=560 MTD=4480 M=16240	758	147	784	

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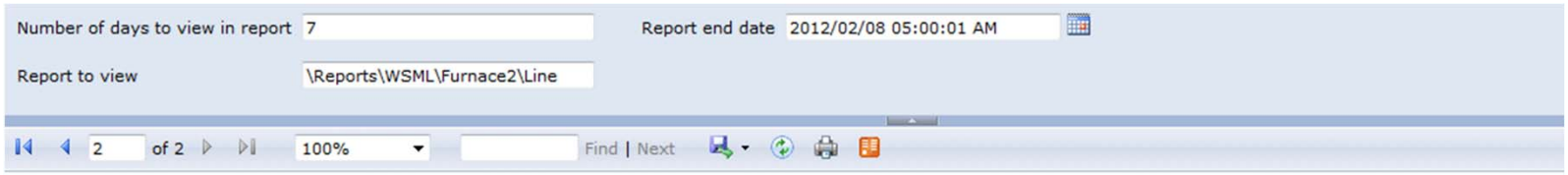
Report



\Reports\WSML\Furnace2
\Chem

AR Samples - Matte	S	Fe	Co	Ni	Cu	Al2O3	CaO	Cr2O3	MgO	SiO2	4E
Unit of Measure	%	%	%	%	%	%	%	%	%	%	gm/t
Month to Date	non	non	non	non	non	non	non	non	non	non	1161
Target											
Average of display days	27.2	39.8	0.39	15.5	9.18	1.91	0.07	1.44	0.13	1.21	974
Variance on latest value											
Tue 10-Jan-2012	29.5	38.7	0.39	16.0	9.20	1.78	0.04	1.24	0.05	0.73	973
Wed 11-Jan-2012	27.6	36.2	0.42	17.2	10.20	1.95	0.10	0.43	0.28	1.85	942
Sun 15-Jan-2012	17.7	43.5	0.35	1			0.08	1.49	0.17	2.64	940
Mon 16-Jan-2012	29.8	41.0	0.35	1			0.06	1.78	0.16	0.51	836
Tue 17-Jan-2012	29.5	40.9	0.41	1			0.09	1.66	0.13	0.76	870
Wed 18-Jan-2012	24.6	41.1	0.36	1			0.07	1.66	0.12	1.19	789
Thu 19-Jan-2012	23.9	39.9	0.37	1			0.09	1.65	0.14	1.79	705
Sat 21-Jan-2012	28.0	36.9	0.38	16			0.05	1.17	0.08	1.04	533
Sun 22-Jan-2012	28.1	37.5	0.39	15.6	9.25	1.94	0.06	0.92	0.09	1.12	910
Mon 23-Jan-2012	31.0	40.1	0.39	14.9	8.63	2.42	0.06	1.74	0.10	1.70	889
Wed 25-Jan-2012	28.9	38.7	0.43	16.6	9.73	1.06	0.07	1.32	0.05	1.15	984
Thu 26-Jan-2012	26.7	43.0	0.41	16.7	9.87	0.69	0.08	2.14	0.10	0.62	1014
Fri 27-Jan-2012	26.5	39.6	0.36	14.6	8.69	1.31	0.06	1.51	0.20	0.88	952
Sat 28-Jan-2012	29.5	38.3	0.40	15.5	9.31	1.48	0.06	1.49	0.13	0.89	1163
Sat 14-Jan-2012		41.9	0.39	16.6	10.00			1.41			863
Fri 20-Jan-2012											778

Full Value : 17.2000007629395
Production Day : Wed; 11 Jan 2012
Variance = no value
Targets:
LoLo = non
Lo = non
Hi = non
HiHi = non

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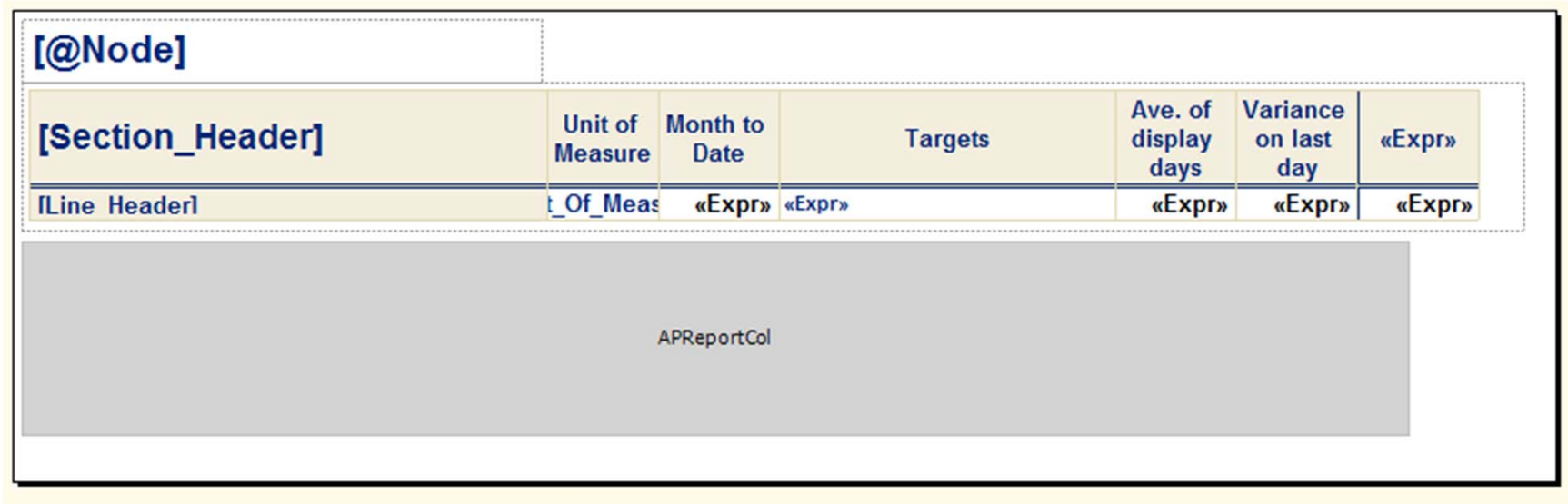
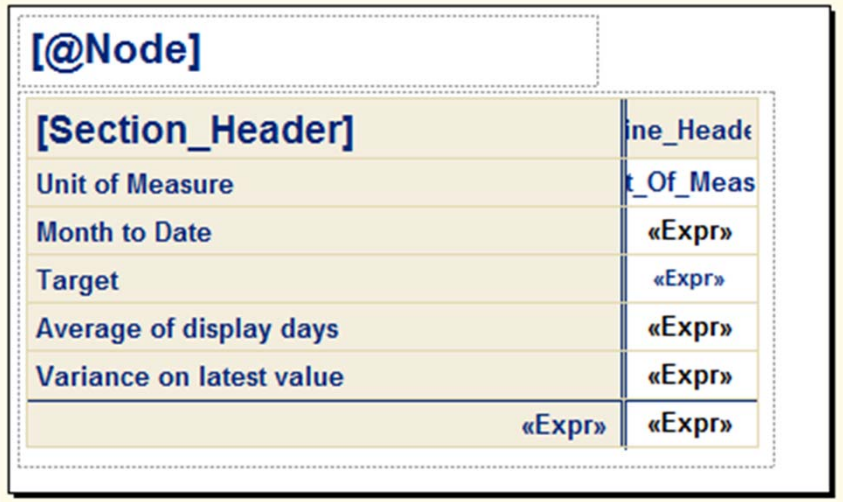
Report Configuration

Lined Report: Reporting services



Column sub-report: Reporting services



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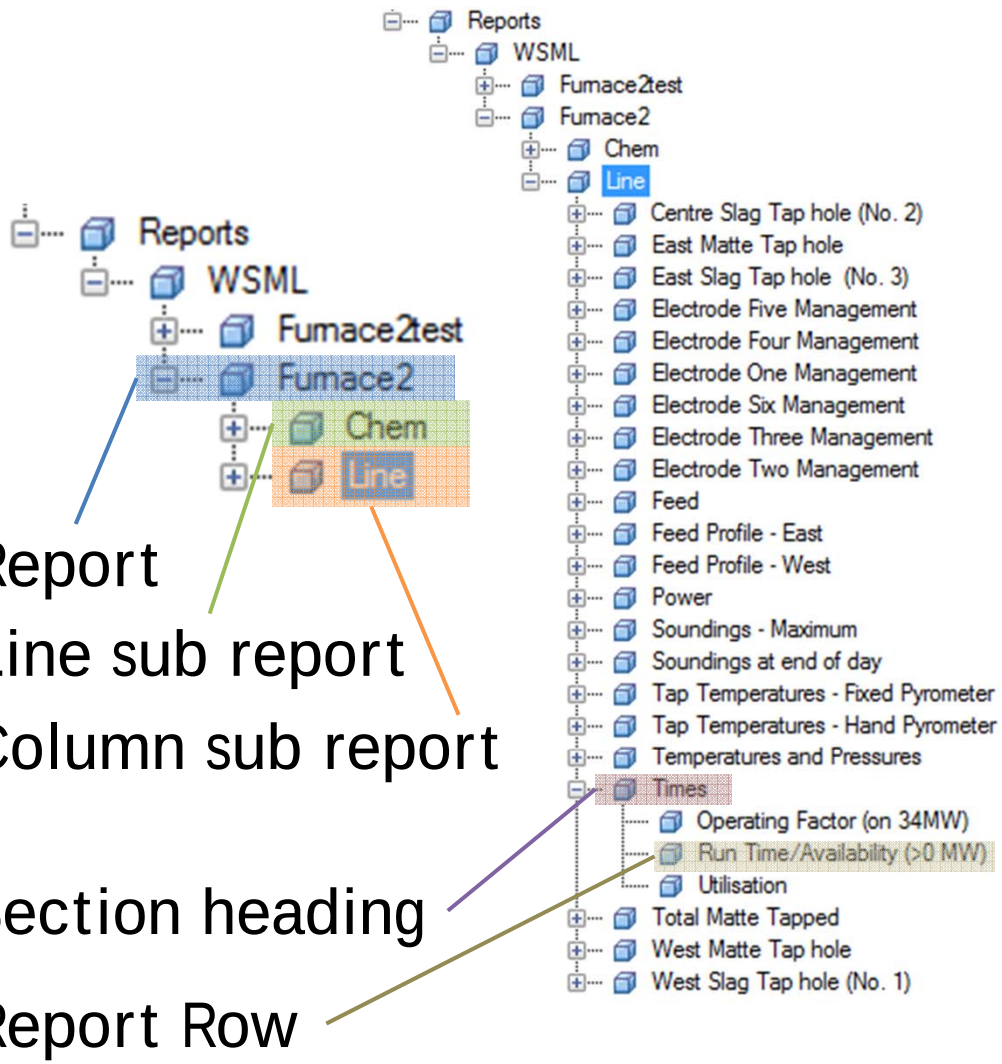
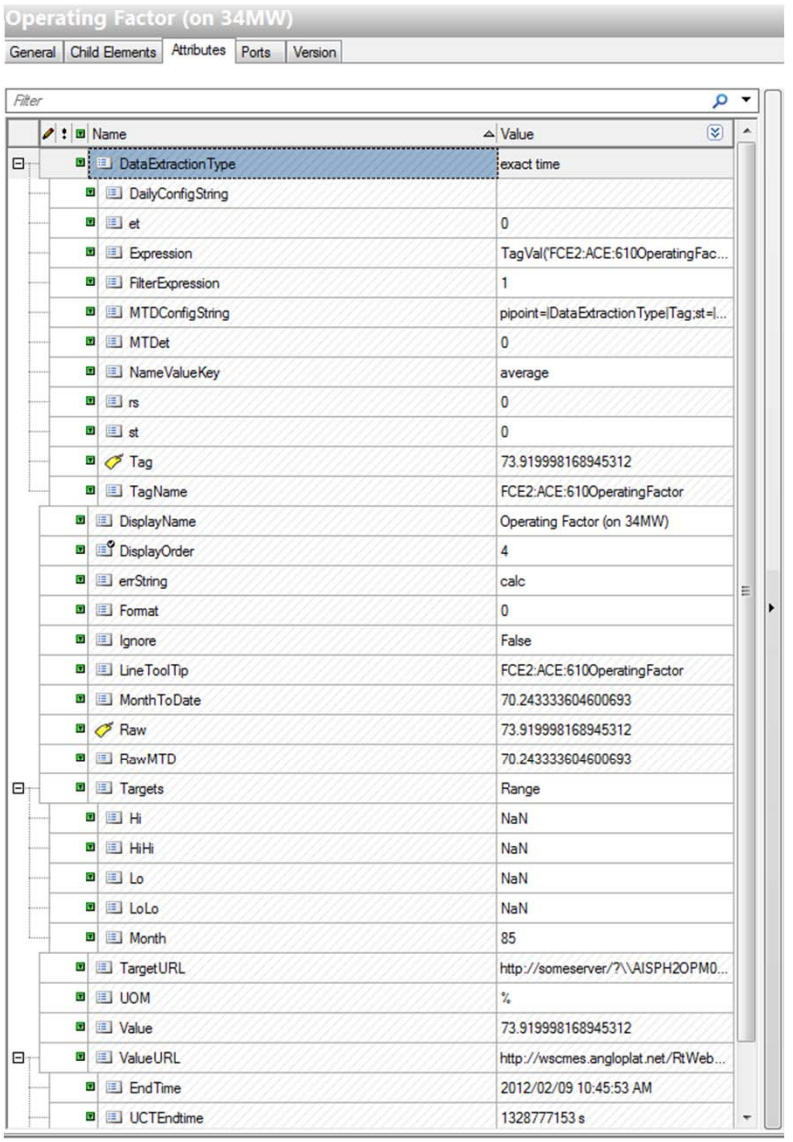
AF





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Details

- Only possible with AF's attribute referencing
- Each report line – 26 attributes
  - Heavily linked (insensitive to tag name changes)
  - URLs dynamically linked to tag name
  - Expressions dynamically linked to tag names
- Needed to replicate DataLink data calls in AF
  - Custom Data Reference
- Standardise Data Calls
  - 9 data calls, daily and month to date

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Future Plans

- More reports are in the pipeline ~ 6
- All new report building directly in AF
- Replace other standard reports types
- Trend URL – use Coresight
- Data validation in reports
- Add Calculation descriptions in tool tips
- Add drilldown functionality for KPI's and Calculations

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Thank you

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