

# Hyperion Focus 17

## Automated Cash Flow Design in HFM & FCCS

Neil Weller  
AMOSCA



# Group Cash Flow Reporting General Observations

- **Cash Flow preparation generally presents a challenge for most groups due to :**
  - Poor initial design within the group consolidation and reporting application.
  - Complexity in identifying the cash flow element within balance sheet movement tables.
  - Difficulty in sourcing and populating balance sheet movements at the correct level of granularity.
  - Different interpretations by group company controllers as to what constitutes cash and how it should be recorded, particularly in decentralised groups.
  - A lack of validations enforcing the reconciliation of 'non cash items' between the income statement and the balance sheet.
  - Reliance on a 'Non-Cash' cash flow account bucket which tends to lead to 'data dumping'.
  - Separate processes controlling the preparation of management and statutory statements with limited integration.
  - Performance analysis review against budget and forecast models where the cash flow statements are more frequently prepared on a direct rather than an indirect basis.



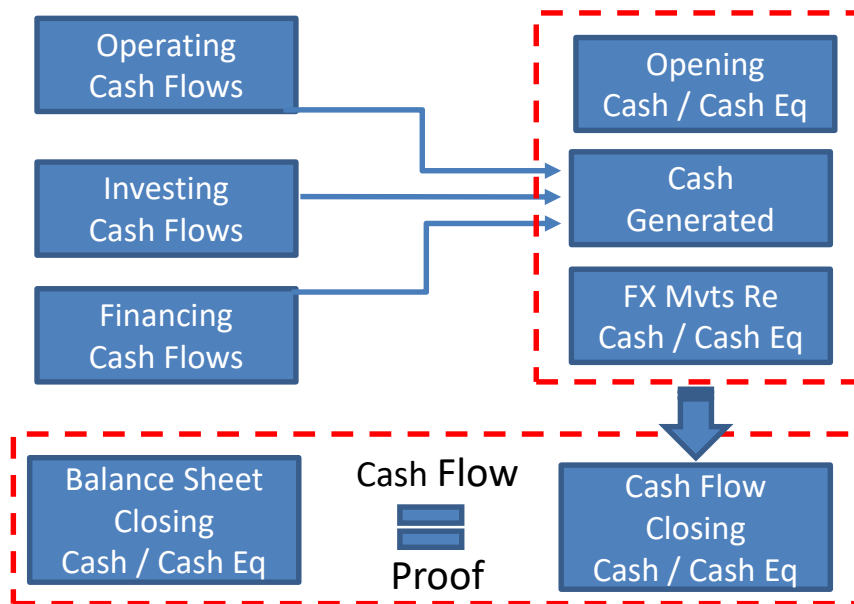
# HFM Cash Flow Reporting Design Approach

- **Fully automated ‘indirect basis’ cash flow models [at ALL entity reporting levels] can be facilitated within an HFM application design, dependent upon the following two criteria :**
  - Balanced balance sheets for all entities at the beginning and end reporting periods.
  - All validations, directly supporting the cash flow, are cleared – generally, these relate to ‘income statement items contained within balance sheet movement tables [Dep’n, Amort, Provisions etc].
- **Good practice cash flow design elements within a HFM application include :**
  - An integrated design approach for both statutory and management cash flow formats, using separate account hierarchies and shared accounts. Top parent member represents closing cash or debt.
  - Granular and account specific movement tables throughout the balance sheet.
  - Cash Flow rules that reference the cash flow elements within the respective movement tables.
  - Supporting validations ensuring the income statement [non-cash] elements are consistently represented within the balance sheet movements [e.g. dep’n, amort, provisions etc.]
  - Separate account hierarchies outside the primary statements providing the cash flow content relating to acquisitions and disposals at a granular level.
  - The ability to run a ‘reconciled’ cash flow for any base or parent entity for any period in local or corporate currency from HFM.

# HFM Cash Flow Reporting

## Statutory v Management Build Formats

- **IFRS Statutory** cash flow content and format is mandated by IAS7 and required to be presented as one of the primary statements.
- It is Reconciled to '**Cash and Cash Equivalents**' in order to reflect the movement in readily available [liquid] cash & short term deposits.



- **Management** reporting cash flow content and format is generally mandated by the group finance team/finance director and reflects the metrics the group uses to assess the group's performance in generating cash.
- Format similar to the statutory model, generally with a '**Free Cash flow**' sub-total account parent.
- Usually reconciled to a net debt metric to assess the effect of cash flows on the level of debt within the group.
- As the reconciliation is to the account sub-hierarchy for '**Net Debt**' it is good practice to either host this sub-hierarchy in the management format balance sheet or as a stand alone sub – hierarchy in order to prove the cash flow model.
- The reconciliation to '**Net Debt**' also requires that all the cash flow accounts hosted within the financing section [and possibly elsewhere] of the statutory model, relating to debt components, are omitted from the management cash flow hierarchy.

# HFM Cash Flow Reporting

## Statutory Format Hierarchy [Example]

Statement of cash flows		STAT CF
Cash and cash equivalents at end of period		CF9999
Increase/(decrease) in cash and cash equivalents		CF8000
Net cash inflow/(outflow) from operating activities		CF3000
Cash generated from/(absorbed by) operations		CF2000
Operating cash flows before movements in working capital		CF1000
Operating profit/(loss)		CF1000 05
Add back of non-cash and other items		CF1200
Share based payment expense		CF1210 05
Defined benefit pension charge/credit		CF1210 10
Defined benefit pension contributions		CF1210 15
Acquisition related items		CF1210 20
Depreciation, amortisation and impairment		CF1220
Depreciation of property, plant and equipment		CF1220 05
Amortisation of intangible assets		CF1220 10
Impairment		CF1220 15
Provision charges		CF1225 05
Share of profit of joint ventures and associates		CF1230 05
(Gain) / Loss on disposal		CF1240
(Gain) / Loss on disposal of intangible assets		CF1240 05
(Gain) / Loss on disposal of property, plant and equipment		CF1240 10
(Gain) / Loss on disposal of subsidiaries		CF1240 15
(Gain) / Loss on disposal of shares in joint ventures and associates		CF1240 20
(Gain) / Loss on disposal of assets held for sale		CF1240 25
Dividends received from JVs and associates		CF1250 05
Pension cost		CF1260 05
Movements in working capital		CF1500
(Increase)/decrease in inventories		CF1500 05
(Increase)/decrease in receivables		CF1500 10
(Increase)/decrease in payables		CF1500 15
Decrease/(increase) in provisions		CF1500 20
Income taxes paid		CF2100 05
Interest paid		CF2200 05
Facility extension fees		CF2300 05
Acquisition costs		CF2400 05
Net cash inflow/(outflow) from investing activities		CF4000
Interest received		CF4000 05
Purchase of property, plant and equipment		CF4000 10
Purchase of intangible assets		CF4000 15
Disposal of property, plant and equipment		CF4000 20
Disposal of intangible assets		CF4000 25
Investment in subsidiaries		CF4000 30
Investment in associates and joint ventures		CF4000 35
Investment in financing assets		CF4000 40
Disposal of shares in joint ventures and associates		CF4000 45
Disposal of business		CF4000 50
Disposal of assets held for sale		CF4000 55
Dividends received from JVs and associates		CF4000 60
Net cash inflow/(outflow) from financing activities		CF6000
Proceeds on issue of share capital		CF6000 05
Equity dividends paid to shareholders		CF6000 10
Equity dividends paid to non-controlling interests		CF6000 15
Purchase of own shares		CF6000 20
Share buybacks		CF6000 25
Proceeds from new borrowings		CF6000 30
Repayments of borrowings		CF6000 35
Repayments of obligations under finance leases		CF6000 40
Loans from/(to) subsidiary companies		CF6000 45
Loans from/(to) joint ventures and associates		CF6000 50
Other financing items		CF6000 55
Cash and cash equivalents at beginning of period		CF9000
Acquired net cash and cash equivalents		CF9200
Effect of foreign exchange rate changes on cash and cash equivalents		CF9500

Operating profit pulled directly from the income statement

Calculated accounts, linked directly to the income statement supported by validations between balance sheet, income statement and asset disposal hierarchy.

Cash flow working capital movements are calculations linked to balance sheet total movements for the accounts that constitute 'working capital'.

Capital expenditure additions and disposal proceeds, tax and interest cash payments & receipts are pulled from the respective balance sheet movement tables. Any income statement charge \ credit is validated to the balance sheet.

Cash flow reconciliation proof is met when the closing balance = the balance sheet equivalent value. Closing balance is the top member of the hierarchy and represented by the equivalent accounts in the respective balance sheet structures.



# HFM Cash Flow Reporting Integrated Reconciliation Metrics

Statutory

Management

## Cash & Cash Equivalents

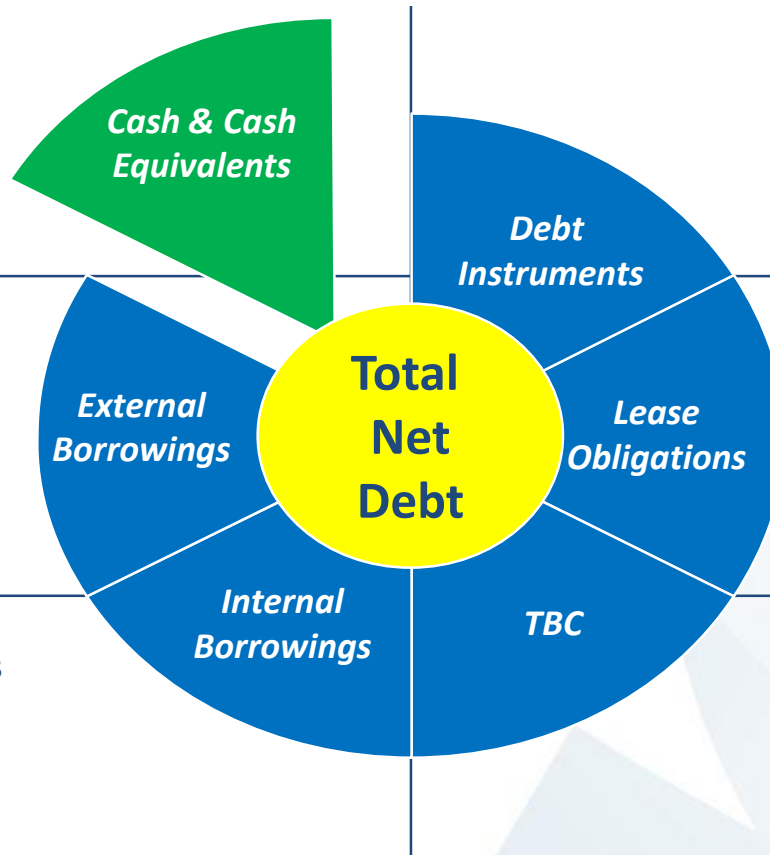
- Cash on Hand
- Demand Deposits
- Short Term Investments

## External Borrowings

- Bank Loans Rec
- Bank Loans Pay
- Other Loans

## Intercompany Borrowings

- Interco Loans Rec
- Interco Loans Pay



## Other Debt Instruments

- Derivatives
- Private Placement Notes
- Certificates of Deposit

## Lease Obligations

- Finance Lease Debt

## Loans to JV's And Associates

- Loans to JV's
- Loans to Associates



# HFM Cash Flow Reporting

## BS Movement Table Rule Examples

Property, plant and equipment - Cost	MPPEC
Opening balance	OPBAL
Additions	ADDNS
Additions - finance leases	ADDNSFL
Disposal	DISP
Asset reclassification [within an entity]	ASSRECLASS
Asset transfer from another group company	ASSTFRIN
Asset transfer to another group company	ASSTFROUT
Transfer to assets held for sale	ASSTFRHFR
Acquisition of business	ACQBUS
Disposal of business	DISPBUS
TotalFX	FXTOT
Movement (calc)	MVT_CALC
Closing balance (input)/ non-aggregating	CLBAL_INP

**PPE Cost movement table attached to all fixed asset – cost accounts.**

Corporate Tax	MCTAX
Opening balance	OPBAL
IS (charge)	IS_CHG
IS credit	IS_CR
Payments	PAYT
Receipts	RECT
Acquisition of business	ACQBUS
Disposal of business	DISPBUS
TotalFX	FXTOT
Movement (calc)	MVT_CALC
Closing balance (input)	CLBAL_INP

**Corporate tax movement table attached to corp tax liability account**

Create CF rule for capex spend addition.

No CF rule – Lease additions do not impact cash – create validation to corresponding movement in lease obligation

No CF rule – historic cost disposal – no cash impact – link to disposal section

No CF rule – Create validation at total BS level that member = 0

No CF rule – Acquisition of assets is part of total consideration and the cash flow rule is sourced from acquisition section of CoA.

No CF rule – Disposal of business is part of disposal section and this member should be linked to disposal accounting section of CoA.

No CF rule – FXTOT is a parent level member and CF rules are not created at the parent value dim level.

No CF rule – Mvt\_Calc is validated to be zero 0 as a movement control

No CF rule – The charge and credit are contra's to the income statement and need to be validated against the movement members in the BS.

Create CF rule for the tax cash spend/receipt components

Cash flow treatment same as for members in the above example



# HFM Cash Flow Reporting Rules Script

- Cash flow rules must pick up the local currency movement for the period of the cash flow, this value will then be translated at the average currency rate [where applicable] as the cash flow is a 'flow' statement with REVENUE/EXPENSE attributes. Do not create parent currency rules as standard.
- There is no FX element in the primary cash flow body, the only FX calculation is on the reconciliation section of each respective cash flow hierarchy [mgmt. v stat].
- Specific rules will need to reference content that sits outside of the primary statements, e.g. Acquisitions and Disposals. Ensure these pick ups are tied back to the primary statements for control purposes.
- Good design is to host a small '2 base node' dimensional table, embedded on all base cash flow accounts allowing calculations to be written to a designated 'calculated' node member whilst presentation adjustments are entered to a designated 'input' node [requires monitoring to ensure correct usage].
- Rules need to run at <Entity Currency/Adjs> in all cases and at [Proportion] & [Elimination] where cash flow account source content is impacted by rules running at these Value dimension members.
- Additional translation scripts need to be hosted to effect the correct calculation of FX on cash/debt opening balance & generated values associated with the respective cash flow hierarchical account content





# HFM Cash Flow Reporting Rules Scope

IsBaseEntity [Base entity @Entity Currency/Adjs]	[Proportion ] level rules Set rule to run on UD filter trigger for specific flagged entities	[Elimination] level rules All entities
All cash flow rules created for the statutory/ management format models [where an integrated solution is required]	Cash flow rules need to be run at HFM's [Proportion] level to reflect the adjustments required to PBT/Operating Profit for equity accounting of JV's and Associates.	Cash flow rules need to reflect any auto elimination that is active within the balance sheet content. Therefore the 'Sub cashflow' routine needs to be re-run on an [Elimination] member filter .
For the management format cash hierarchy, the cash flow rules relating to the majority of debt elements will not exist and therefore no values are created.	The starting position of a cash flow model - 'operating profit' includes the non-cash 'share of profit' account line. If proportional 'equity accounting' has been used in respect of Joint Ventures and Associate entities then the relevant 'Sub- cashflow' rules will need to be re-run on the [Proportion] member.	Elimination type rules will include any entries created as part of the auto-eliminate process via intercompany flagged accounts and associated plugs. Sub-eliminate bespoke [Elimination] rules will also need to be reflected within the cash flow rules script.
Validation rules need to be created at the appropriate entity level to support creation of a fully automated cashflow.		Typical content will generally include the interco receivables/payables accounts which impact working capital, interest and dividends.,
The only values that should be required outside of the primary statements are the disposal proceeds and the analysis of consideration for acquisitions.		



# FCCS Overview

- FCCS [Financial Consolidation & Close Cloud Service] is Oracle's pre-configured cloud offering for consolidation and reporting. **Important to note - It is NOT 'HFM on the Cloud'.**
- It offers quick implementations with pre-configured metadata and 'out of the box functionality'.
- The primary benefit is that there is no requirement to manage infrastructure, software maintenance or patching and customers benefit from always having the latest version and features.
- FCCS comes pre-packaged with the following :
  - » Predefined dimensions containing 'Pre-Seeded' members.
  - » Flexible application configuration module.
  - » Standard consolidation and elimination functionality.
  - » Basic currency translations and FX adjustment calculations
  - » Built-in KPI ratio analysis
  - » Custom calculations using member formulae [business rules no longer required].
  - » Automated Cash Flow [requires metadata development].
  - » Close Calendar, Task Management and WorkFlow
  - » Pre-Defined Dashboards and Reports
  - » Data Integration Functionality



# FCCS Cash Flow Reporting Design Approach

- FCCS provides the structural elements to support an automated cash flow design within the pre-built '**Movements**' dimension.
- Unlike HFM, where most cash models would be created as account hierarchies, FCCS uses an alternate cash low hierarchy within the Movements dimension, containing a mix of pre-defined FCCS type members together with user defined members to support the creation of an automated cashflow [see diagrams in following slides].
- The primary structure in the FCCS packaged application is based upon the IFRS format design.
- Alternate hierarchies are supported either for movement tables or alternate format cashflows.
- The primary statutory cashflow members FCCS\_CashFlow\_Operating/Investing/Financing are pre-defined, more granular requirements will need to be provided from user defined [additional] members.
- Any 'new' user defined movement members, added to the 'FCCS\_Movements hierarchy will need to be duplicated within the FCCS\_CashFlow hierarchy in order to keep the cashflow model in a balanced status.
- Under the FCCS\_Movements hierarchy, new movement members should have a 'consolidation operator' attribute of 'Addition'.
- Under the FCCS\_CashFlow hierarchy, new movement members should have a 'consolidation operator' attribute of Subtraction.



# FCCS Cash Flow Reporting

## Primary 'Movement' Dimension

Name	Alias (Default)	Data Storage
Movement		Never Share
FCCS_Movements	Total Movements	Dynamic Calc
FCCS_No Movement	No Movement	Store
FCCS_ClosingBalance	Closing Balance	Never Share
FCCS_TotalOpeningBalance	Total Opening Balance	Never Share
FCCS_Mvmts_Total	Total Movement Changes	Never Share
FCCS_Mvmts_Subtotal	Movements Subtotal	Never Share
FCCS_Mvmts_Cash	Changes in Cash	Never Share
FCCS_Mvmts_Operating	Movements Operating	Dynamic Calc
FCCS_Mvmts_NetIncome	Changes in Net Income	Never Share
FCCS_Mvmts_AdjustmentsToNetIncome	Adjustments to Net Income	Never Share
FCCS_Mvmts_ChangesInNetAssets	Changes in Net Assets	Never Share
Mvmts_Interest Paid Recd	Changes in Interest	Never Share
Mvmts_Tax Paid Recd	Changes in Tax	Never Share
FCCS_Mvmts_Investing	Movements Investing	Dynamic Calc
FCCS_Mvmts_Financing	Movements Financing	Dynamic Calc
Mvmts_NonCash_Control	Non Cash Balance Sheet Movements	Dynamic Calc
FCCS_Mvmts_FX_Total	Total Effect from Foreign Exchange	Never Share

- The FCCS\_Movements hierarchy shown above contains pre-packaged movements and user defined members.
- Note the naming convention of 'pre-seeded' [FCCS\_Mvmts\_XXXXX] and user defined [Mvmts\_XXXX] members .



# FCCS Cash Flow Reporting

## Cash Flow 'Movement' Dimension

▲ FCCS_CashFlow	Cash Flow	Dynamic Calc
▲ FCCS_CashFlow_Operating	Net Cash from Operations	Dynamic Calc
▶ FCCS_CashFlow_NetIncome	Net Cash from Income	Dynamic Calc
▲ FCCS_CashFlow_AdjustmentsToNetIncome	Net Adjustments to Income	Dynamic Calc
▶ FCCS_CashFlow_DepreciationAndAmortization	Cash Flow Adj - Add Back of Non Cash Items	Dynamic Calc
▶ CashFlow_AdjustmentForInt	Cash Flow Adj - Add Back of Interest IS Credit/Chg	Never Share
▶ CashFlow_AdjustmentforCTax	Cash Flow Adj - Add Back of CTax IS Credit/Chg	Never Share
▶ FCCS_CashFlow_NetAssets	Net Adjustments to Net Assets	Dynamic Calc
▲ FCCS_CashFlow_Investing	Net Cash from Investing	Dynamic Calc
▶ FCCS_CashFlow_CapitalExpenditures	Cash Flow from Capital Expenditures	Dynamic Calc
▶ FCCS_CashFlow_ProceedsFromSalesOfPPE	Cash Flow on Proceeds from Sales of PPE	Dynamic Calc
▶ FCCS_CashFlow_OtherInvestingActivities	Cash Flow from Other Investing Activities	Dynamic Calc
▲ FCCS_CashFlow_Financing	Net Cash from Financing	Dynamic Calc
▶ FCCS_CashFlow_IssueOfStock	Cash Flow from Issue Of Stock	Dynamic Calc
▶ FCCS_CashFlow_ProceedsFromDebt	Cash Flow from Proceeds from Debt	Dynamic Calc
▶ FCCS_CashFlow_RepaymentOfDebt	Cash Flow from Repayment Of Debt	Dynamic Calc
▶ FCCS_CashFlow_OtherFinancingActivities	Cash Flow from Other Financing Activities	Dynamic Calc
▶ CashFlow_LeasePymts	Cash Flow from Repayment of Finnace Lease Capital	Dynamic Calc
▶ CashFlow_LeaseInt	Cash Flow from Repayment of Finnace Lease Interest	Dynamic Calc
▲ FCCS_CashChange	Cash Change	Dynamic Calc
▶ FCCS_OpeningBalance_Cash	Opening Balance for Cash asset	Dynamic Calc
▶ FCCS_FX_Total_NonCash	Total effect from FX on non-Cash accounts	Dynamic Calc
▶ FCCS_ClosingBalance_Cash	Closing Balance for Cash asset	Dynamic Calc

- The FCCS\_CashFlow hierarchy shown above is constructed to reflect the IFRS statutory format.
- It contains shared duplicate movement members embedded under pre-defined [FCCS\_CashFlow\_XXXXX] and user defined [CashFlow\_XXXXxX] cash flow reported members.
- The FCCS\_CashChange sub-hierarchy represents the opening to closing reconciliation of cash & cash equivalents.





# FCCS Cash Flow Reporting

## Design Issues and Operating Tips

- Ensure that the FCCS design includes sufficient granular detailed movement members for the balance sheet accounts so that the cash and non-cash elements can be easily identified.
- From an accounting perspective, 'disposal proceeds' does not represent a movement in fixed assets or investments, for cost and dep'n/impair. However it is a value that is required for presentation within the cash flow hierarchy. Sourcing this content could present design issues in FCCS.
- Acquisition of business [additions to investments] could present a design issue as the value does not always represent cash. May require supplemental analysis within the application or off-line.
- As a large proportion of the balance sheet movements do not involve cash transactions [i.e. income statement content, finance leases additions, deferred tax], it is important to ensure that these items are separately identified and controlled [income statement to balance sheet] through validations.
- The FCCS cash flow is a movements dimension model and does not require a supported hierarchy in the accounts dimension, when running a cash flow report the account dimension POV setting should be the alternate balance sheet top member '**FCCS\_Total Balance Sheet – Cash and NonCash**'
- The FCCS cash flow picks up the income statement content for it's starting position via the movements member '**FCCS\_Mvmts\_NetIncome**'. It is important that this member is therefore used when loading source data to the income statement.
- The only FX element within the automated cashflow is the calculation of the fx movement on the opening cash and cash equivalents and cash generated provided by the member '**FCCS\_FX\_TotalNonCash**'.



# Hyperion Focus 17

Thank you

