Credit Analytics Suite Package Scheme Guide

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Introduction

The full suite of Credit Analytics libraries are contained in a set of components:

- The Credit Product/Parameters/Curves definitions and interfaces, and the supporting functionality (dates, holidays, day count etc) library
- The core Credit Analytics functionality
- A comprehensive execution time based regression test suite
- Sensitivity generation suite using algorithmic differentiation
- A supporting numerical tool suite (fixed point searches, optimizers, and splines)

Starting from 2.1 onwards, all these are available as part of the same source and jar package.

Package Scheme List

Functional Group	Functional Sub-group / Package / Module	Class
org.drip.analytics	calibration	• CreditCurveScenarioGenerator • CurveCalibrator atesCurveScenarioGenerator
org.drip.analytics	creator	• CreditCurveBuilder • DiscountCurveBuilder • FXBasisCurveBuilder • FXForwardCurveBuilder eroCurveBuilder
org.drip.analytics	curve	• ConstantForwardHazard • ConstantForwardRate • CubicForwardRate • DerivedFXBasis • DerivedFXForward • DerivedZeroRate • HyperbolicTensionForward LinearForwardRate • PolynomialSplineDF
org.drip.analytics	date	• DateTime • JulianDate
org.drip.analytics	daycount	• ActActDCParams • Convention

		• DateAdjustParams • DateEODAdjustment • DC30_360 • DC30_365 • DC30_Act • DC30E_360 • DCAct_360 • DCAct_364 • DCAct_365 • DCAct_365L • DCAct_Act_ISDA • DCAct_Act • DCFCalculator • DCNL_360 • DCNL_365 • DCNL_Act
org.drip.analytics	definition	• CreditCurve • Curve • DiscountCurve • FXBasisCurve • FXForwardCurve • ZeroCurve
org.drip.analytics	holiday	• Base • Fixed • Locale • Static • Variable • Weekend
org.drip.analytics	holset	• LocationHoliday

		• All the other jurisdiction-specific holidays
org.drip.analytics	output	• BasketMeasures • BondCouponMeasures • BondRVMeasures • BondWorkoutMeasures • ComponentMeasures • ExerciseInfo
org.drip.analytics	period	• CouponPeriod • CouponPeriodCurveFactors • LossPeriodCurveFactors • Period
org.drip.analytics	support	• AnalyticsHelper • GenericUtil • Logger
org.drip.feed	loader	• BondRefData • CDXRefData • CreditStaticAndMarks
org.drip.math	algodiff	• DerivativeControl • Differential • ObjectiveFunction • WengertJacobian
org.drip.math	common	• DateUtil • FormatUtil • MapUtil • NumberUtil • StringUtil
org.drip.math	sample	• RootFinderSample
org.drip.math	solver1D	• BracketingControlParams • BracketingOutput

		• ConvergenceControlParams • ConvergenceOutput • ExecutionControl • ExecutionControlParams • ExecutionInitializationOutput • ExecutionInitializer • FixedPointFinder • FixedPointFinderBracketing • FixedPointFinderBrent • FixedPointFinderNewton • FixedPointFinderOutput • FixedPointFinderZheng • InitializationHeuristics • IteratedBracket • IteratedVariate • VariateIterationSelector • VariateIteratorPrimitive
org.drip.math	Spline	• BasisCubicPolynomial • BasisExponentialTension • BasisHyperbolicTension • BasisPolynomial • BasisQuarticPolynomial • BasisSplineElasticParams • BasisSplineSegment • ElasticCoefficients • InelasticOrdinates • SpanInterpolator
org.drip.param	config	• ConfigLoader
org.drip.param	creator	• BasketMarketParamsBuilder

		• ComponentMarketParamsBuilder • ComponentQuoteBuilder • CreditCurveScenarioBuilder • MarketParamsBuilder • QuoteBuilder • RatesScenarioCurveBuilder
org.drip.param	definition	• BasketMarketParams • CalibrationParams • ComponentMarketParams • ComponentQuote • CreditNodeTweakParams • CreditScenarioCurve • MarketParams • NodeTweakParams • Quote atesScenarioCurve
org.drip.param	market	• BasketMarketParamSet • ComponentMarketParamSet • ComponentMultiMeasureQuote • CreditCurveScenarioContainer • MarketParamsContainer • MultiSidedQuote • RatesCurveScenarioContainer
org.drip.param	pricer	• PricerParams
org.drip.param	valuation	• QuotingParams • ValuationParams • WorkoutInfo

org.drip.product	creator	• BondBasketBuilder • BondBuilder • BondProductBuilder • BondRefDataBuilder • CashBuilder • CDSBasketBuilder • CDSBuilder • CDXRefDataHolder • EDFutureBuilder • FXForwardBuilder • FXSpotBuilder • IRSBuilder
org.drip.product	credit	• BondBasket • BondComponent • CDSBasket • CDSComponent
org.drip.product	definition	• BasketMarketParamRef • BasketProduct • Bond • BondProduct • CalibratableComponent • Component • ComponentMarketParamRef • CreditComponent • CreditDefaultSwap • FXForward • FXSpot • RatesComponent
org.drip.product	fx	• FXForwardContract

		• FXSpotContract
org.drip.product	params	• CDXIdentifier • CDXRefDataParams • CouponSetting • CreditSetting • CurrencyPair • CurrencySet • EmbeddedOptionSchedule • FactorSchedule • FloaterSetting • IdentifierSet • NotionalSetting • PeriodGenerator • PeriodSet • QuoteConvention • RateSetting • StandardCDXParams • TerminationSetting • TreasuryBenchmark • TsyBmkSet • Validatable
org.drip.product	rates	• CashComponent • EDFComponent • IRSComponent
org.drip.regression	core	• RegressionEngine • RegressionRunDetail • RegressionRunOutput • RegressorSet • UnitRegressionExecutor

		• UnitRegressionStat • UnitRegressor
org.drip.regression	curve	• CreditAnalyticsRegressionEngine • CreditCurveRegressor • DiscountCurveRegressor • FXCurveRegressor • ZeroCurveRegressor
org.drip.regression	curveJacobian	• CashJacobianRegressorSet • CurveJacobianRegressorSet • DiscountCurveJacobianRegressorSet • EDFJacobianRegressorSet • IRSJacobianRegressorSet
org.drip.regression	fixedpointfinder	• BracketingRegressorSet • CompoundBracketingRegressorSet • FixedPointFinderRegressionEngine • OpenRegressorSet
org.drip.service	api	• CreditAnalytics
org.drip.service	bridge	• CreditAnalyticsProxy • CreditAnalyticsStub
org.drip.service	env	• BondManager • CDSManager • EnvManager • EODCurves • RatesManager • StandardCDXManager • StaticBACurves
org.drip.service	sample	• BloombergCDSW • BondAnalyticsAPI • BondBasketAPI

		• BondLiveAndEODAPI • BondSample • BondStaticAPI • CDSBasketAPI • CDSLiveAndEODAPI • CreditAnalyticsAPI • DayCountAndCalendarAPI • FXAPI • RatesAnalyticsAPI • RatesLiveAndEODAPI • TreasuryCurve
org.drip.service	stream	• Serializer
org.drip.tester	functional	• BondTestSuite • CreditAnalyticsTestSuite • ProductTestSuite • SerializerTestSuite