

# CODE AUTOMATION TEMPLATE FRAMEWORK (CATfX)®

## ACCELERATION THROUGH AUTOMATION

The Code Automation Templates Framework (CATfX) is an automation framework designed for Developers and Analysts to automate manual processes and save your projects significant time, cost and money.

CATfX is an automation framework and a developer productivity tool that uses a set of APIs and Web services to build reusable code in the form of Code Automation Templates (CATs) to speed up manual processes and save your Organization considerable time, cost and money. This “build once, publish and deploy” productivity tool helps automate manual coding tasks, ETL Integrations Jobs/Patterns, Data profiling tasks, QA/Testing tasks, SQL/DDL generation and a lot more. Universal Code Generation and Reusability make it flexible and future-proof”

## THE COMPLETE AUTOMATION FRAMEWORK

The CATfX uses a set of published APIs and Web services that work with the Mapping Manager framework to help automate manual processes. Code Automation Templates (CATs) written in different scripting languages (e.g. JavaScript, XSLT, JRuby etc.) are capable of generating the required code to automate these manual tasks.

Use Cases include but are not limited to

- Generation of ETL Code based on design patterns (SCD1 SCD2 etc.)
- Generation of Big Data Automation Scripts
- Automated Test Case generation
- DDL/SQL Code Generation
- Data Vault Methodology Templates
- Custom Connectors with your existing methodology toolsets to sync data TO and FROM Mapping Manager

The responsibility to create the Code Automation Templates primarily falls on the Technical User Groups (e.g. Developers). However, once created, these are executed by normal business users as well as a repeatable process.

## BENEFITS

- ✓ Enterprise Code management. All automation templates reside in a governed repository.
- ✓ IP Protection.
- ✓ Deliver greater quality code and minimize rework.
- ✓ Business-friendly Integrated Development Environment (IDE)
- ✓ Generate templates based on Job design best practices
- ✓ Greater level of project acceleration
- ✓ Wider adaptability due to amount of supported scripting languages

## Supporting Devices

- ✓ JavaScript
- ✓ JRuby
- ✓ XSLT
- ✓ Groovy
- ✓ J-Python

The framework can also include any external jars/libraries that are java based as part of your automation templates.

## INTEGRATED DEVELOPMENT ENVIRONMENT (IDE)

The CATfX enables developers to leverage the SDK scripting languages and a set of published libraries by AnalytiX DS (APIs Web services) to create Code Automation Templates (CATs) which serve as blueprints to automate common and routine tasks such as generate DDL, ETL Jobs, Big Data, Test SQL and much more to accelerate delivery. Leveraging the FREE CATs and creating new CATs will guarantee accelerated delivery timelines of your projects

## A COMPLETE SOLUTION FOR ETL, SQL, DDL & BIG DATA AUTOMATION!

CATfX uses Code Automation Templates (CATs) to abstract away the low-level complexity of common or routine integration tasks. This means any novice or subject matter expert can “quickly and easily” generate comprehensive code measured in minutes - NOT Days, Weeks or Months!

The Code Automation Templates (CATs) designed & developed by your experts ensure adherence to compliance and your published best practices and design standards, whether it is DDL, ETL, Test or Big Data integration. Now even your junior level resources can become as productive as your most senior level resources!

## AUTOMATION & CODE GENERATION

The CATfX enables developers to leverage the SDK scripting languages and a set of published libraries by AnalytiX DS (APIs Web services) to create Code Automation Templates (CATs) which serve as blueprints to automate common and routine tasks such as generate DDL, ETL Jobs, Big Data, Test SQL and much more to accelerate delivery. Leveraging the FREE CATs and creating new CATs will guarantee accelerated delivery timelines of your projects

Using built-in SDKs customize the code-generation to customer specific requirements. Use the automation framework and repeatable processes and solutions to automate manual tasks, accelerate delivery and reduce rework

### ETL & ELT

- ETL and ELT Code Generation based on Metadata driven approach
- Generation of ETL Jobs for Informatica, Datastage, Talend, SSIS, Pentaho, ODI, OWB, BODS and others based on job design best practices
- Reverse Engineering of ETL jobs into Mapping Documents

### Data Vault

Pre-built and custom Data Vault Code Automation Templates approved by Dan Linstedt to automate the code-generation for the Data Vault Rapid EDW methodology for Stage, HUB, LINK, Satellites and Data Marts

- Data Vault Hub, Link, Satellite code gen
- Data Vault Table Structures
- Data Vault data mappings in Mapping Manager
- Data Vault ETL Processes
- Data Vault DBMS Views
- Data Vault test cases

### Others

- Generate SQL Code and Stored Procedures
- Generate DDLs from Metadata to build warehouses and Marts
- Seamless Integration with third party toolsets



## ETL/ELT STANDARDIZATION & AUTOMATION

- ETL Tool Integration to Standardize design patterns
- Stage load, SCD Dimensions Type 1, 2 & 3, Fact etc. patterns
- Big Data: Generate PIG, Scoop, MapReduce and Python scripts
- Big Data: Scan Metadata from HDFS, HIVES and other Eco-sphere systems and more..!

## TESTING & CUSTOM CODE GENERATION

- Generate Test Cases
- Generate Test SQL
- Generate Validation Scripts

## KEY FEATURES

- Multi scripting language support. Developer has the flexibility to program in a language of choice
- Creation of reusable templates based on established job design patterns and best practices
- Version Code Automation Templates and compare code changes
- Dynamic Form creation to handle run time parameters to pass as arguments to the Code Automation Templates
- Generation of Data Vault Templates created and approved by Dan Linstedt.
- Automation Jumpstart Program offered to help implementation and generate instant ROI
- Code Generation Support for ETL, ELT, Big Data, Data Vault methodologies and many more

Generate DDL

- Generate any type of script in any language or technology
- Generate any type of file and more..!

## BIG DATA STANDARDIZATION & AUTOMATION

- Generate a Data lake in 6 Weeks!
- Generate ETL Jobs in Hadoop from leading ETL tool providers
- Big Data: Generate Spark, PIG, Scoop, MapReduce, R Programming and Python scripts
- Big Data: Scan Metadata from HDFS, HIVES and other Eco-sphere systems and more..!

# The automation possibilities are limitless!

Contact AnalytiX DS to know more on how automation can save you valuable time and money!

## About AnalytiX DS

AnalytiX Data Services is a leading data integrator in the mapping management and automation space. About 1000+ enterprises (50% Fortune 1000 companies) depend on AnalytiX DS to manage their "Pre-ETL" source to target mapping specifications and accelerate the data mapping process. AnalytiX DS is part of the HP Global Delivery Methodology and are partnered with Talend, Informatica, Data Vault and many more.

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