

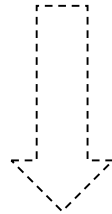


One step from business strategy to business rules

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Presenter notes have been added to this slideshow. In PDF format, these are usually accessed by mouse-over on the balloon in the top left corner





One step from strategy to business rules

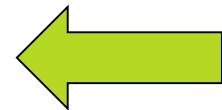
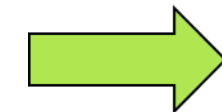

Strategy defines the enterprise

Business rules define how the enterprise responds to real world events

The success or failure of the strategy is governed by these business rules



Develop/Test/Implement the
'Rule Book' in a Single Process

```

using System;
using System.Collections;
using System.Reflection;
using System.Text;
using IdiomSoftware.com.DecisionServer;
namespace com.idiomsoftware.decisionserver.generated.NSCCDCATIPOC
{
    namespace Information
    {
        /// <summary>
        /// This class specifies information that can be used for invocation via DecisionServer.
        /// </summary>
        public class Information_DecisionModel_IPOC_Policy_2006
        {
            /// <summary>
            /// Name of the Repository that this code has been generated for.
            /// </summary>
            public const string RepositoryName = "NSCC DCAT";

            /// <summary>
            /// Name of the Decision Model that this code has been generated for.
            /// </summary>
            public const string Impl = "com.idiomsoftware.decisionserver.IPOC_Policy_2006";
        }
    }
}
    
```



What is the Rule Book?

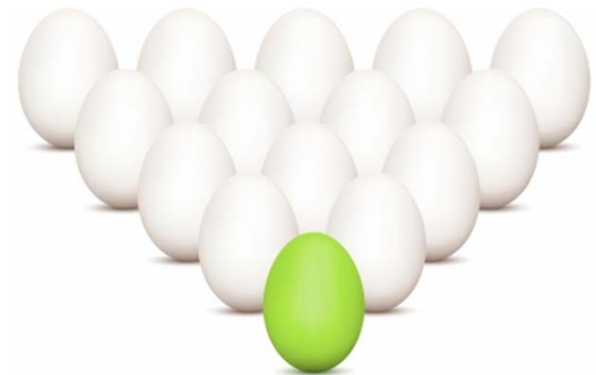


AKA “business policy”

- **Policy:** “A plan or course of action, as of a government or business, intended to influence and determine decisions, actions, and other matters” <http://www.thefreedictionary.com/policy>
- **Policies** define how the business will respond to each real world event, and can often be codified and automated as ‘business rules’
- So that **Policies** become CONTENT in deployed systems
- **Policies** come in 3 major flavours:
 - Third party imposed i.e. regulations
 - Third party agreed i.e. contracts
 - Internally defined i.e. products and services

Policies are “the essence that makes the business the kind of business it is and makes it different from any other”

<http://www.thefreedictionary.com/haecceity>





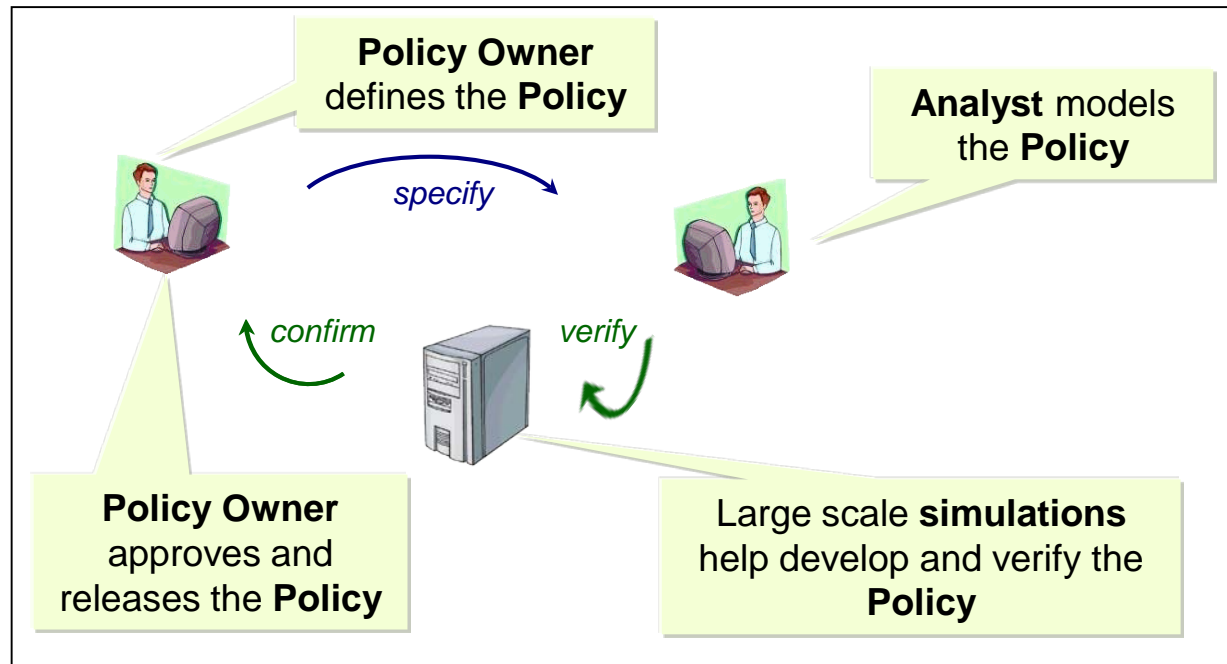
One Step – the 'policy development cycle'



Owner and Analyst – often the same person – understand and verify each other's specifications

Simulation platform provides Policy development feedback and production testing

Tested Policies are deployed directly into systems – rules are **not** re-interpreted into code



- New "Policy Development Cycle" is distinct from SDLC
- Simplifies SDLC for simpler, cleaner, more maintainable systems
- Agile business/agile systems, with reduced time, cost and risk
- 100% alignment between business strategy and systems

The tested **Policy** is deployed directly into all relevant applications



Policy Development = Rules Development = Code Development



Caution – “Rules” are Necessary but not Sufficient



- To use the one-step approach, the entire Policy must be modelled and implemented as a single unit of work
- Policies are defined in the language of the business
- Systems and data are constrained to a language defined by fixed data schemas
- One-to-one correlation between these languages is implausible
- **Therefore**, the modelling environment MUST inherently allow transformation between these languages to convert raw data into the same terms as used by the Policy
- Full data transformation within the policy transaction is a necessary adjunct to ‘business rules’

For a fuller description of this topic please see the Modern Analyst article “[Decisioning – the next generation of Business Rules](#)”, also available on the Business Rules Journal



Examples Implemented using 'One Step' Approach



- Insurance Underwriting/Rating Policies
- Insurance Claims Management Policies
- [Local Government Funding Policy*](#)
- Health Billing Policies
- Border (Immigration) Control Policies
- [Clinical Screening Policies*](#)
- Pension Fund Administration Policies
- [Education Funding Policies*](#)
- Social Welfare Intervention Policies
- Entitlement Policies
- Loyalty Reward Policies

- [Development Contributions Calculator](#)

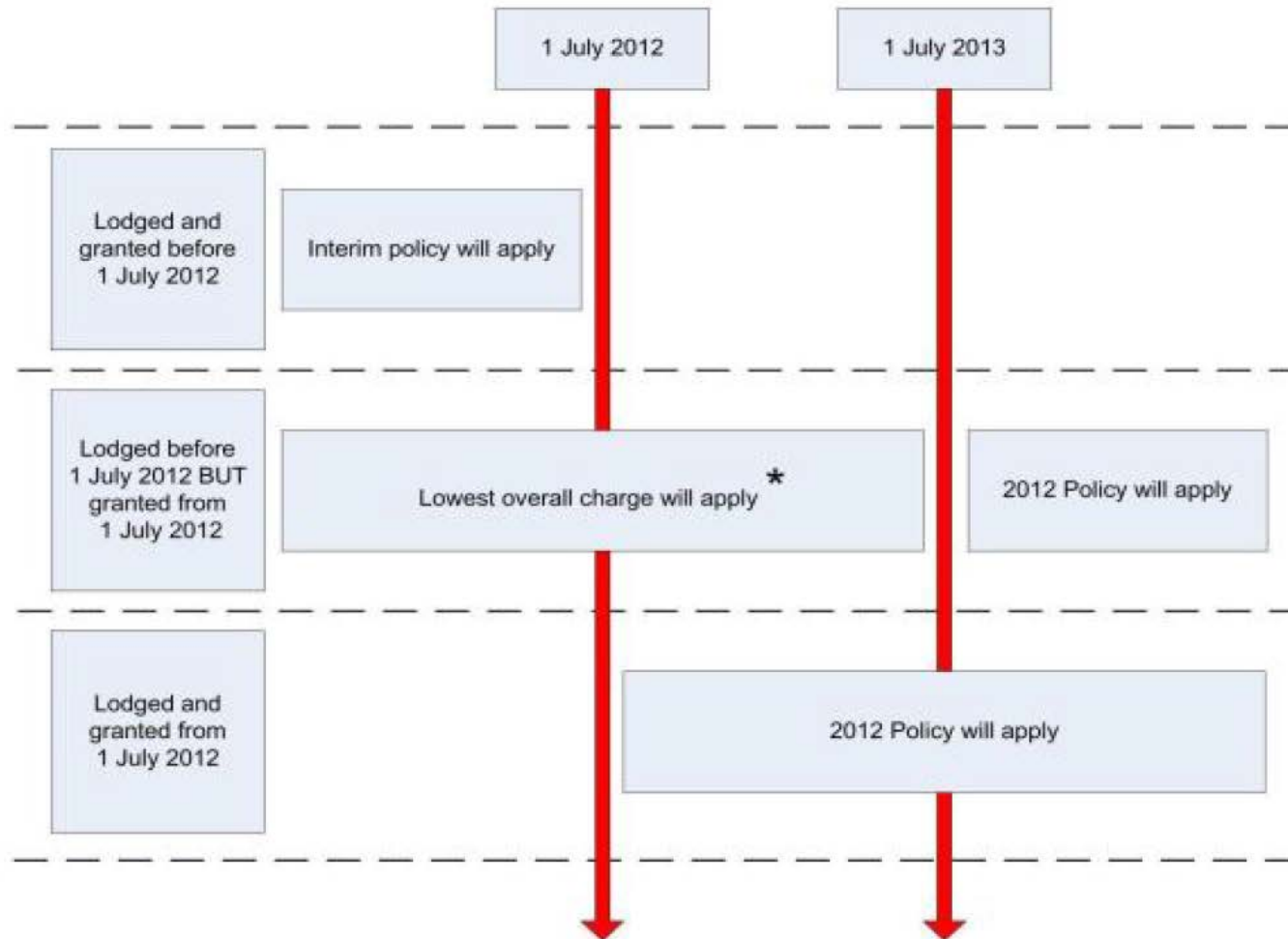
* Hyperlinks are to publicly available examples of typical policy documents



Other Benefits – Policy as CONTENT



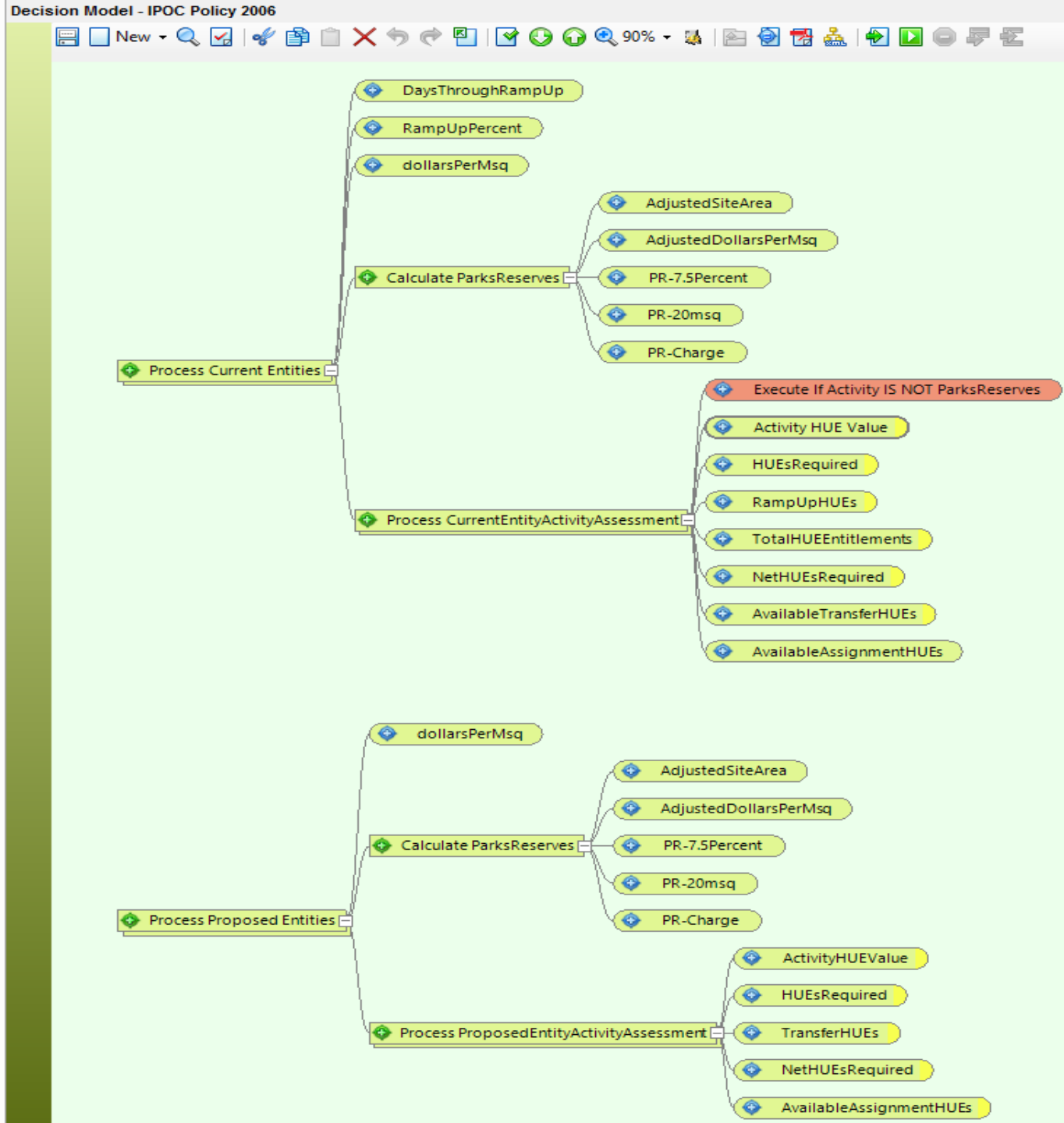
Figure 1: Policy Transition Process



* Extracted from City Council [Development Policy](#)

chamas

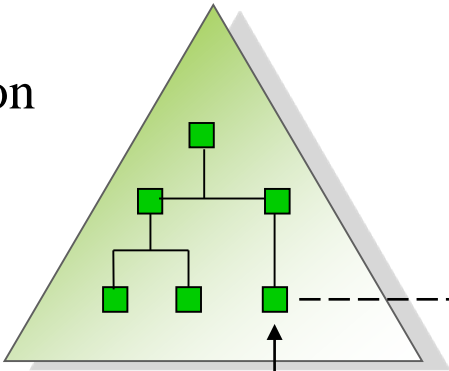
- RAMPUP START DATE
 - TOTAL RAMPUP DAYS
- DaysThroughRampUp
 - DaysThroughRampUp
 - DaysThroughRampUp
- RampUpPercent
 - RampUpPercent
 - RampUpPercent
- TargetEntity
- CurrentEntityActivityAssessment
 - ActivityName (Activity Name)
 - Create Stormwater Activity
 - Create Transport Activity
 - Create Stormwater Activity
 - Create Transport Activity
 - Execute If Activity IS NOT Park
 - ActivityHUEValue
 - Activity HUE Value
 - Activity HUE Value (1753-1
 - Activity HUE Value
 - HUEsRequired
 - HUEsRequired
 - HUEsRequired
 - OtherCredits
 - RampUpHUEs
 - RampUpHUEs
 - RampUpHUEs
 - TotalHUEEntitlements
 - TotalHUEEntitlements
 - TotalHUEEntitlements
 - NetHUEsRequired
 - NetHUEsRequired
 - NetHUEsRequired
 - AvailableTransferHUEs
 - AvailableTransferHUEs
 - AvailableTransferHUEs
 - AvailableAssignmentHUEs
 - AvailableAssignmentHUEs
 - AvailableAssignmentHUEs
 - Execute If Activity IS NOT ParksRe
 - Process CurrentEntityActivityAsse
 - HUE Value Non-Res Retail-FMCG Trar
 - Process Current Entities
- ProposedEntity



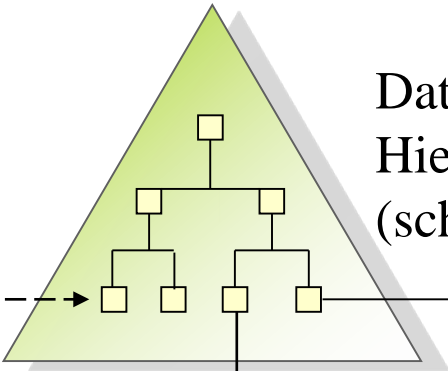


Policy Modeling

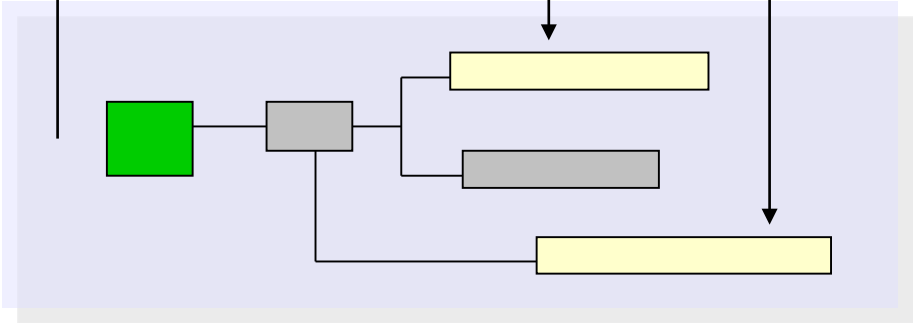
Decision Model



Data Hierarchy (schema)



- Decision node
- Data Element
- Formula Component

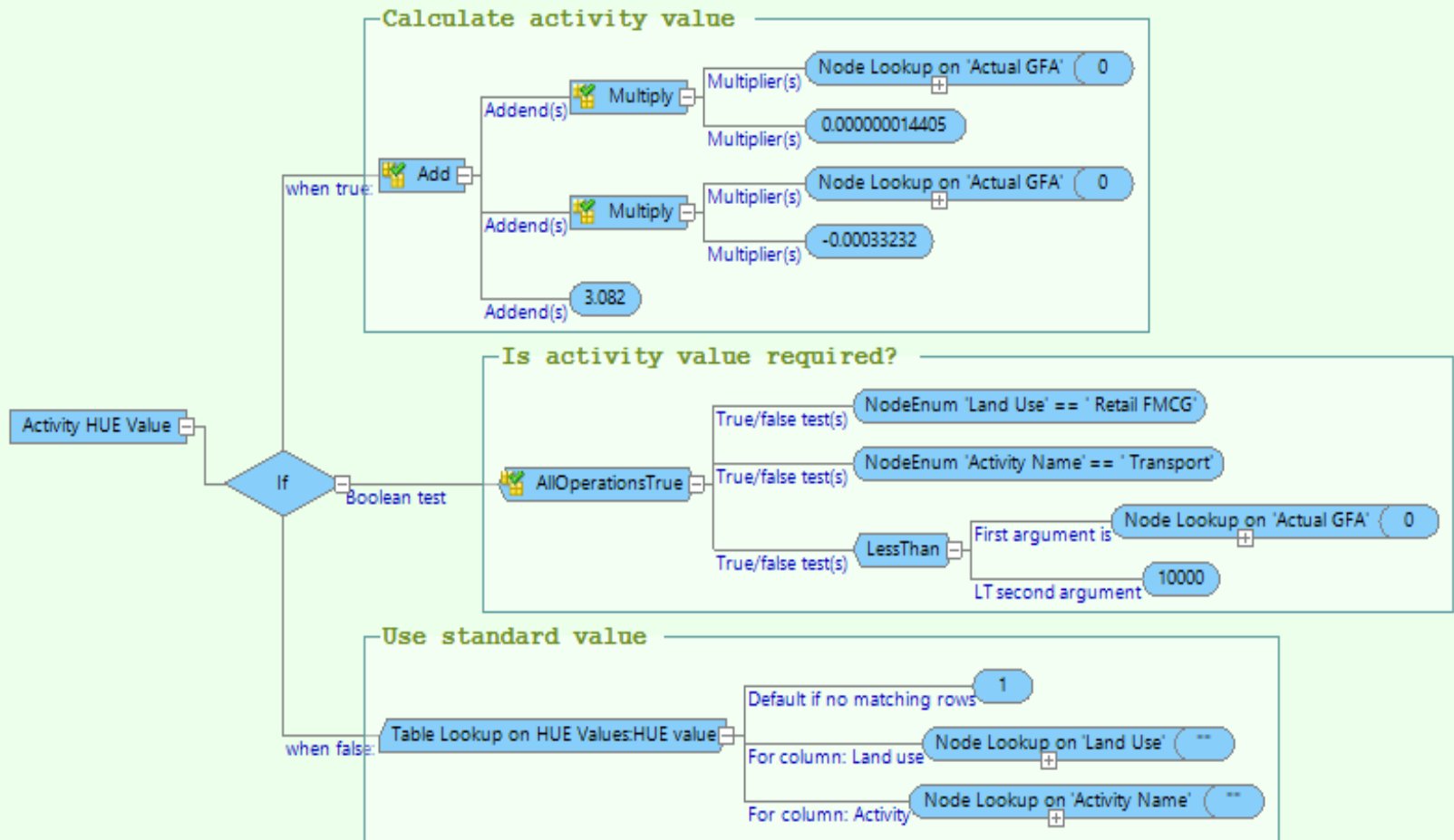


Supported by a formula

Example of a formula



Activity HUE Value



The same Formula in 'logical English'



Activity HUE Value

80%

FORMULA VERSION DETAILS

Activity HUE Value

Context Node /HUEAssessment/CurrentEntity/CurrentEntityActivityAssessment/ActivityHUEValue
Status Complete
Effective Date 1753-01-01
Calculation Mode Use 'int' for whole number calculations
Description

Alias Legend:

| | |
|----------------------|---|
| Activity Name | /HUEAssessment/CurrentEntity/CurrentEntityActivityAssessment/ActivityName |
| Actual GFA | /HUEAssessment/CurrentEntity/NonResidentialAreaInfo/ActualGFA |
| Land Use | /HUEAssessment/DCApplication/LandUse |

FORMULA VERSION DEFINITION

The Formula Version "Activity HUE Value" is defined as follows.

If this test returns true:
Is activity value required?

- THEN **Calculate activity value**
- ELSE **Use standard value**

Is activity value required? is defined as follows:
Perform the following series of tests. This operation will return true only when ALL tests in the series are true:

- The first test will return "true" when Land Use equals "Retail FMCG"
- The second test will return "true" when Activity Name equals "Transport"
- The third test will return true when Actual GFA < 10000

Calculate activity value is defined as follows:
Return $(\text{Actual GFA} * 0.000000014405) + (\text{Actual GFA} * -0.00033232) + 3.082$

Use standard value is defined as follows:
Return the "HUE value" value from the "HUE Values" table (and if the field is empty, then return 1)
For the key field "**Land use**" use Land Use
For the key field "**Activity**" use Activity Name



Tools Used to Implement Policy Examples



- **IDIOM Decision Manager** is a tool for the SME and/or analyst to graphically model, test, document and deploy complex business decision-making as fully executable, high performance 'decision models' – without programming!
- **IDIOM Forms** is a tool to define and deploy large, complex Web2.0 forms that are tightly bound to **IDIOM** decision models at execution time, field by field. The decision models are used to apply all business logic, to control workflow, and to dynamically control the form's look and feel.
- **IDIOM Decision Tracker** is a tool to map MS Word and MS Excel documents to **IDIOM** decision models for full bi-directional traceability between corporate policy definitions and their implementation as **IDIOM** generated decision models.
- **IDIOM Decision Manager Workbench** is a user operable application to acquire decision models and other process components, assemble them into scheduled processes, and to run them on a large scale for simulation, testing, and production use. It also collects outcomes and supporting information per transaction and/or per process for subsequent analysis and/or action.



Thank You

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