

The background features a large, light gray curved shape on the left side, and a stylized globe icon with a grid pattern on the far left. The main text is centered in a dark blue serif font.

Idiom to calculate Development Contributions

The Domain

- **Development Contributions**

- Local Body Councils must fund future infrastructure improvements. Development Contributions are a funding stream to fund future growth related to development.

- **Judicial Review**

- North Shore City Council was subject to a Judicial Review over the method it used to calculate development contributions.
- The JR held the amount charged must be fair, it must be related to future growth and it must be justifiable.

The Business Problem

- North Shore City Council needed to be able to easily configure a development and accurately calculate the develop contribution it attracted.
- The rules for the calculation were policy dependent and potentially changed for each policy.
- The calculation needed to be implemented and in production the day after the policy was ratified by Council.
- Amendments to Assessment Application needed to be auditable.
- Existing business rules were encapsulated in a large unwieldy spreadsheet.

How we solved it

- The policy related aspects of the calculation were extracted into an external business rule engine.
- Externalising the business rules allowed:
 - The rules to be maintained and verified independently of the application.
 - Policy changes could be applied to the rules without requiring application changes.
 - Business rule changes are not implemented by programmers.
- Application created to allow simple, intuitive configuration of any development.

Idiom Benefits



- **Business Rules Independence**
 - Business Rules are stored in a central location.
 - Easily testable and verifiable against requirements.
 - Business Rules can be tested independently of the application code.
 - Business rules are maintained by business people.
 - Quick to change.

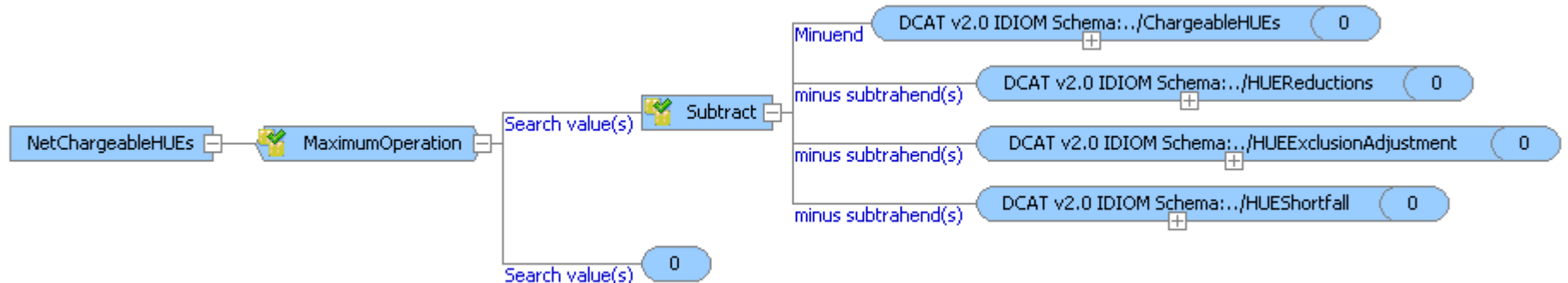
Example of features

- An application can be assessed under a specific policy. The application is configured and the business rules engine calculates the development contributions.
- An application can be amended – a ‘snap-shot’ is taken of the original application (auditability) and the application is reconfigured and the contribution re-calculated.
- An application can be processed and charged for in stages.
- All changes to an application are recorded and reviewable.
- Complete traceability of charges for the various Activity Types (Transport, Storm water, Waste-water, Water Supply etc).

Example

Calculating Net Chargeable HUE (Household Unit Equivalent)

- *Take 'ChargeableHUEs' as an input and deduct any reductions, exclusion adjustments or shortfalls.*
- *Finally, ensure that the chargeable amount is either a positive value or zero (to eliminate "negative charges").*



Screenshot – List of Applications



DCAT II

Logout System Admin About

+ New DC Assessment + New DC Estimate Refresh Save Filter Load Filter Show Filter Street No: Street Name: Property Id: Orig Assmnt Id: Search

Application Assessments

Assessment #	Application #	Applicant	Created By	Created D...	Assessed By	Assessment Date	Assessment Type	Application Gr...	Processin...	Review Sta...																					
20000-0v0	SA-3009821	Applicant20000	Gallagher Bob	23/06/2008	Gallagher Bob	23/06/2008	DC Assessment	Subdivision Consent	Amended	Review Not Req...																					
20000-0v1	SA-3009821	Applicant20000	Gallagher Bob	23/06/2008	Gallagher Bob	23/06/2008	DC Assessment	Subdivision Consent	Complete Pos...	Review Not Req...																					
20009-0v0	BB-1092131	Applicant20009	Gallagher Bob	23/06/2008	Gallagher Bob	25/06/2008	DC Assessment	Building Consent	Complete Pos...	Request Declined																					
20011-0v0	SA-3008961	Applicant20011	Gallagher Bob	24/06/2008	Gallagher Bob	24/06/2008	DC Assessment	Subdivision Consent	Amended	Review Not Req...																					
20011-0v1	SA-3008961	Applicant20011	Gallagher Bob	02/02/2009	Gallagher Bob	24/06/2008	DC Assessment	Subdivision Consent	Complete Pos...	Review Not Req...																					
20016-0v0	BB-1085131	Applicant20016	Gallagher Bob	24/06/2008	Gallagher Bob	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Review Not Req...																					
20017-0v0	LH-2018111	Applicant20017	Peter Flinn	24/06/2008	Peter Flinn	25/06/2008	DC Assessment	Land Use Consent	Complete Pos...	Review Not Req...																					
<table border="1"> <thead> <tr> <th>Stage ID</th> <th>Stage Name</th> <th>Policy</th> <th>Schedule</th> <th>Payment Status</th> <th>Locked</th> <th>Total Stage Charges</th> </tr> </thead> <tbody> <tr> <td>20017-1v0</td> <td>Complete Development</td> <td>2004 Policy</td> <td>2004 Master Schedule</td> <td>FullPaymentReceived</td> <td>True</td> <td>\$37,911.18</td> </tr> <tr> <td colspan="6"></td> <td>\$37,911.18</td> </tr> </tbody> </table>											Stage ID	Stage Name	Policy	Schedule	Payment Status	Locked	Total Stage Charges	20017-1v0	Complete Development	2004 Policy	2004 Master Schedule	FullPaymentReceived	True	\$37,911.18							\$37,911.18
Stage ID	Stage Name	Policy	Schedule	Payment Status	Locked	Total Stage Charges																									
20017-1v0	Complete Development	2004 Policy	2004 Master Schedule	FullPaymentReceived	True	\$37,911.18																									
						\$37,911.18																									
20020-0v0	BB-1088141	Applicant20020	Nick Fletcher	24/06/2008	Nick Fletcher	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Review Not Req...																					
20021-0v0	BB-1093671	Applicant20021	Peter Flinn	24/06/2008	Peter Flinn	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Review Not Req...																					
20022-0v0	BB-1087511	Applicant20022	Gallagher Bob	24/06/2008	Gallagher Bob	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Review Not Req...																					
20023-0v0	LF-2079661	Applicant20023	Gallagher Bob	24/06/2008	Gallagher Bob	24/06/2008	DC Assessment	Land Use Consent	Complete Pos...	Request Declined																					
20024-0v0	LF-2074971	Applicant20024	Peter Flinn	24/06/2008	Peter Flinn	24/06/2008	DC Assessment	Land Use Consent	Complete Pos...	Review Not Req...																					
20025-0v0	BB-1092781	Applicant20025	Gallagher Bob	24/06/2008	Gallagher Bob	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Review Not Req...																					
20026-0v0	BB-1088161	Applicant20026	Nick Fletcher	24/06/2008	Nick Fletcher	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Review Not Req...																					
20027-0v0	BB-1090691	Applicant20027	Gallagher Bob	24/06/2008	Gallagher Bob	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Request Declined																					
20028-0v0	BB-1085351	Applicant20028	Gallagher Bob	24/06/2008	Gallagher Bob	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Request Accepted																					
20029-0v0	BB-1092951	Applicant20029	Nick Fletcher	24/06/2008	Nick Fletcher	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Review Not Req...																					
20030-0v0	BB-1078721	Applicant20030	Peter Flinn	24/06/2008	Peter Flinn	24/06/2008	DC Assessment	Building Consent	Amended	Request Accepted																					
20030-0v1	BB-1078721	Applicant20030	Peter Flinn	24/11/2008	Peter Flinn	24/11/2008	DC Assessment	Building Consent	Amended	Request Accepted																					
20030-0v2	BB-1078721	Applicant20030	Gallagher Bob	25/11/2008	Gallagher Bob	25/11/2008	DC Assessment	Building Consent	Complete Pos...	Request Accepted																					
20031-0v0	BB-1093291	Applicant20031	Nick Fletcher	24/06/2008	Nick Fletcher	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Review Not Req...																					
20032-0v0	BB-1093271	Applicant20032	Nick Fletcher	24/06/2008	Nick Fletcher	24/06/2008	DC Assessment	Building Consent	Complete Pos...	Request Declined																					

Database: Production System User Name: chris

Business Value Delivered

Screenshot – Application Details



Application Assessment # 20017-0v0

Application Details Assessment #: 20017-0v0 Assessment Type: DC Assessment
Application #: LH-2018111 Application Group: Land Use Consent

Assessment Configuration

Assessment #:	20017-0v0	When Lodged:	17/09/2003
Application #:	LH-2018111	When Granted:	23/07/2004
Applicant:	Applicant20017	Source System:	DCAT2004 *
Development Description:	3 units on a Residential 7 with s/works and service court infringements *		
Original Assessment ID:	135		

Application Group:	Land Use Consent	Special Assessment Type:	
Application Type:	New Residential Units 2 or more	Vesting Total:	
Application Sub Type:		<input type="checkbox"/> PDA <input type="checkbox"/> SLC <input type="checkbox"/> Missed Opportunity <input type="checkbox"/> Duplicate	
Responsible Officer:	P Neeve	<input type="checkbox"/> Revaluation Reminder Sent	
Assmnt Record Status:	Locked	When Created:	24/06/2008 08:30:48
Processing Status:	Complete Posted <input type="button" value="Change"/>	Created By:	Peter Flinn
Review Status:	Review Not Requested <input type="button" value="Change"/>	Last Assessed:	25/06/2008 10:50:33 a.m.
		Last Assessed By:	Peter Flinn

Business Value Delivered

Screenshot – Configure an Entity



Application Assessment # 27999-0v0

Entity Configuration

Assessment #: 27999-0v0
Application #: LH-2018111
Assessment Type: DC Assessment
Application Group: Land Use Consent

NORTH SHORE CITY

Entity Configuration

Entity Type: **Proposed** Active Entity Name: Unit 2 *

Future Status: Current Entity Description:

Entity Land Use: Residential * Application Group: Land Use Consent

Stage Property: 22186000 * Zone:

CMLV: \$250,000.00 * Valuation Date: 12/08/2004 * Last valuation date for CMLV is more than 12 months.

Net Site Area: 862.00000 * Dollars per msq: \$290.02

Actual GFA: Calculated GFA:

Actual ISA: Calculated ISA:

MALA Date: Previously Assessed

Days Through Ramp-Up: Ramp-Up %:

Entity Chargeable Make Assignment HUEs Available
 Is Blank Site Entity Included for HUE Assignment

Entity Multiplier: 1 * Allocation Property: Add Property

Source Entities:

Save Cancel

Business Value Delivered

Screenshot – Assessment Summary



Application Assessment # 20017-0v0

Assessment Summary Assessment #: 20017-0v0 Assessment Type: DC Assessment
 Application #: LH-2018111 Application Group: Land Use Consent

Application Assessment Summary Stage Assessment Summary

	Charge By Activity
Community Infrastructure	
Community Services	\$1,372.00
Parks - Community	\$3,492.00
	<hr/>
	\$4,864.00
Network Infrastructure	
Stormwater	\$2,046.00
Transport	\$3,156.00
Wastewater	\$6,086.00
Wastewater Treatment	\$5,608.00
Water Supply	\$338.00
	<hr/>
	\$17,234.00
Parks Reserves	
Parks - Reserves	\$11,600.80
	<hr/>
	\$11,600.80
Totals	
TOTAL excl. GST	\$33,698.80
GST	\$4,212.38
	<hr/>
TOTAL incl. GST	\$37,911.18
Vesting of Land	
Value of Vested Land	\$0.00

Business Value Delivered

Screenshot – Assessment of a Stage



Application Assessment # 20017-0v0

Assessment Summary Assessment #: 20017-0v0 Assessment Type: DC Assessment
 Application #: LH-2018111 Application Group: Land Use Consent

Application Assessment Summary Stage Assessment Summary

Stage ID	Stage Name	Policy	Schedule	Payment Status	When Invoiced	When Paid	Tot DC Chg ex GST
20017-1v0	Complete Development	2004	2004 Master Schedule	FullPaymentReceived	17/08/2004	27/06/2008	\$33,698.80

Activity Summary Entity Summary

Activity	HUE Req	Total HUE Entl	Net HUE Req	Net Chargeable HUEs	DC Charge ex GST
Community Services	2.00000	0.00000	2.00000	2.00000	\$1,372.00
Parks - Community	2.00000	0.00000	2.00000	2.00000	\$3,492.00
Stormwater	2.00000	0.00000	2.00000	2.00000	\$2,046.00
Transport	2.00000	0.00000	2.00000	2.00000	\$3,156.00
Wastewater	2.00000	0.00000	2.00000	2.00000	\$6,086.00
Wastewater Treatment	2.00000	0.00000	2.00000	2.00000	\$5,608.00
Water Supply	2.00000	0.00000	2.00000	2.00000	\$338.00
Parks - Reserves	2.00000	0.00000	2.00000	2.00000	\$11,600.80
					\$33,698.80

Business Value Delivered