Case Study:
City of Manukau

Key Facts:

Industry: Government
Problem: Migrating parcel-dependent GIS datasets, while still maintaining spatial relativity
Solution: FME
Results: Greater efficiency and flexibility in geoprocessing, leading to significant time-savings
Location: Manukau, New Zealand

"FME's Rubbersheeter was able to combine Manukau City Council's existing parcel-dependent cadastral data with a newer "survey accurate" national digital cadastre."

Te Kaunihera o
MANUKAU
*City Council*

The Challenge
In the late 1990s, the government of New Zealand mandated the compilation of a national digital database of "survey accurate" land titles and other cadastral information as the first phase of Land Information New Zealand's (LINZ) Core Records System. The Core Records System (CRS) is now part of an integrated, on-line system (Landonline) that has allowed land professionals to file over one million property transactions from their own PCs and has seen the majority of New Zealand survey firms registering to retrieve information and file survey results online.

Manukau City Council maintains its own cadastre in-house, but also needed to take advantage of the improved spatial accuracy inherent in the Core Records System. However, this was not a simple matter of swapping the council's GIS datasets for

the CRS, as many of Manukau City Council's other datasets have topological dependencies with parcel boundaries – many administrative datasets were derived from parcel boundaries, early underground services were captured as offsets from parcel boundaries, and many district planning zones are coincident with parcel boundaries. The Council needed a toolset that could migrate these parcel-dependent GIS datasets while still maintaining spatial relativity.

The Solution
Manukau City Council tried several different solutions to their data migration problem. One system the council tried was limited to 50,000 shift-vectors. Another struggled to adjust medium-sized datasets. Only Safe Software's FME® was able to migrate Manukau City Council's parcel-dependent GIS information without becoming compromised by the large size of the dataset. FME's Rubbersheeter within WarpFactory provided the critical functionality required for this task. FME was also used to generate the 423,000 shift-vectors that reflect the irregular shift between the old and new cadastral representations.
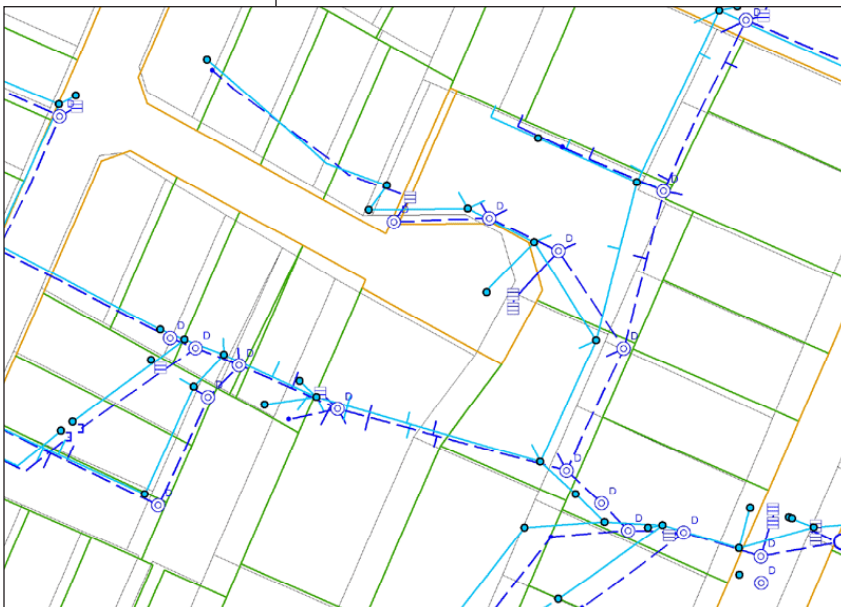
Showing storm-water drains, before and after adjustment. The original storm-water drains are shown in light blue; the adjusted storm-water drains are shown in dark blue. Original parcel boundaries are grey; new CRS parcel boundaries are shown in colour.

The Results

Manukau City Council was able to continue using their in-house cadastral records and at the same time take advantage of the accuracy and sophistication of the national digital cadastral database. FME's ability to read and write from ArcSDE 8.3 directly made workflows much more efficient.

"I am very impressed with the efficiencies I have been able to achieve in the geoprocessing area using the FME Workbench Module. The ability to be able to branch data flows into separate geoprocessing streams affords considerable flexibility which has provided significant gains in terms of time savings."
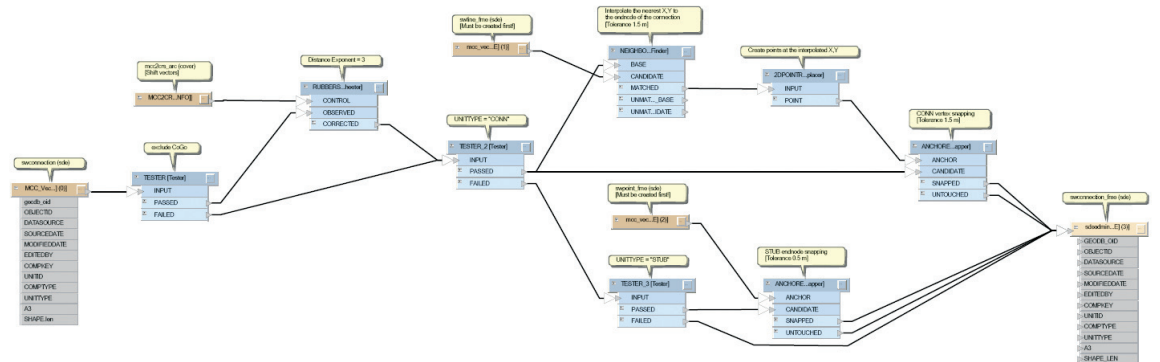
What They're Saying

"I have been working with ESRI GIS products for over ten years now and I am very impressed with the efficiencies I have been able to achieve in the geoprocessing area using the Workbench Module. The ability to be able to branch data flows into separate geoprocessing streams affords considerable flexibility which has provided significant gains in terms of time savings."

Learn More

To find out how FME can help address your data interoperability challenge, or to download a free evaluation copy of FME, visit *www.safe.com*.
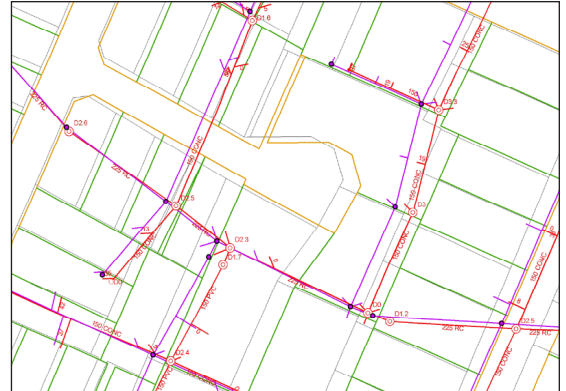
Showing waste-water drains, before and after adjustment. The original waste-water drains are shown in purple; the adjusted waste-water drains are shown in red. Original parcel boundaries are grey; new CRS parcel boundaries are shown in colour.

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