CMDB Visualization Using Visio

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3. Embedding data and hyperlinks into Visio shapes
4. Using Visio data graphics to highlight status
5. Putting service maps on the Intranet with Visio web pages
6. Multiple mappings from a common data source
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CMDB Visualization Using Visio

Managing change to the services delivered by an IT infrastructure requires understanding at all levels and by many teams. Communicating how systems and services are interlinked is not easy, so we use maps and diagrams to enable comprehension of the likely risks or paths involved.

Examples of typical diagrams covering CMDB/CMS
1. Service Maps
2. Architecture diagrams
3. Data flows between components
4. Change / Incident indication
5. Batch process charts
6. Recovery / Risk indications

There are many different diagrams that help with managing services, so AssetGen SysMap provides an easy way to create the different views of our infrastructure using MS Visio.

Plus we have to consider how we maintain them.

Business Processes
Departmental, Company

Services
End user, infrastructure, supplier

Applications
PC, server, mainframe, SOA

Virtual Infrastructure
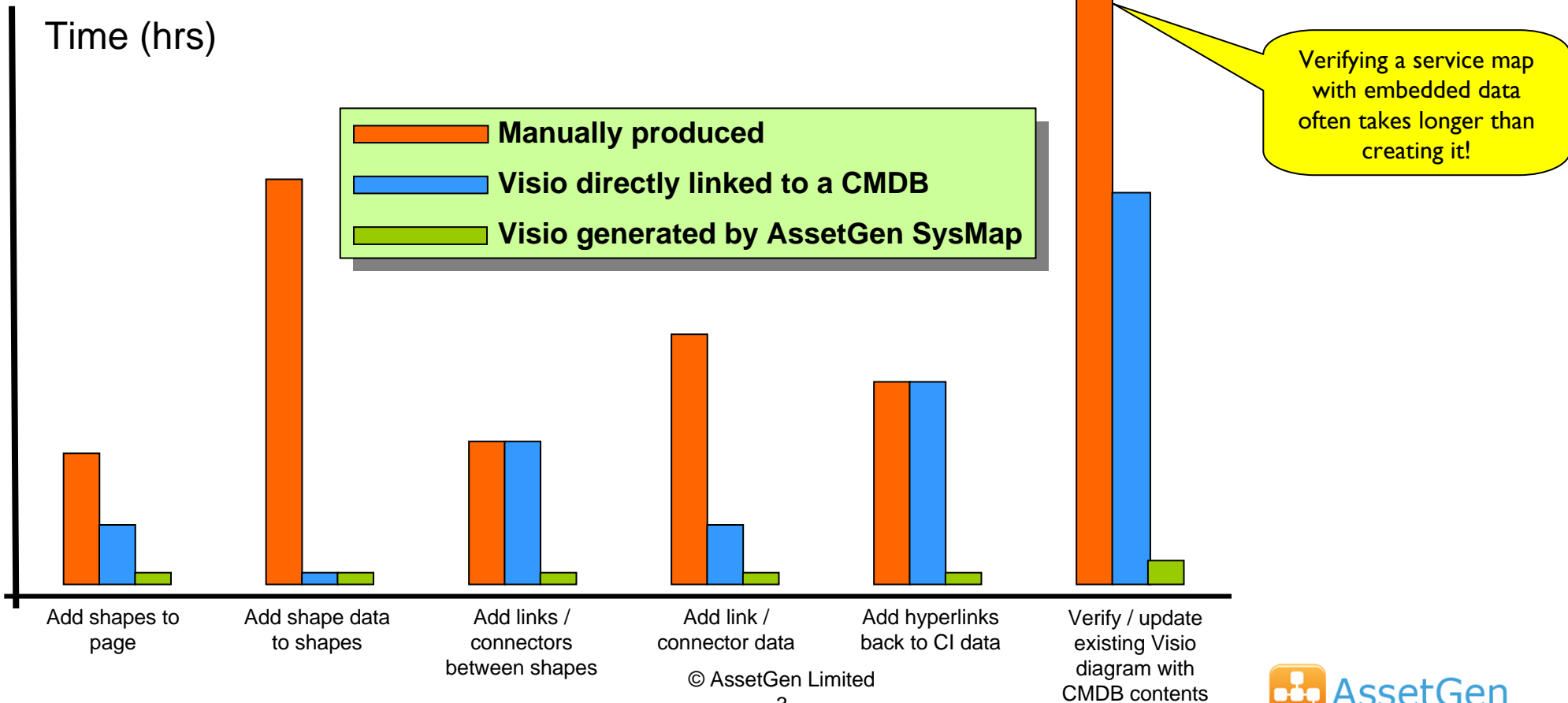PCs, Network, Servers, Storage, DBMS

Hardware Infrastructure
PCs, Network, Servers, UPS, Storage, Other

Fixed Infrastructure
(Cabling, Power, Cabinets, Rooms, Buildings)

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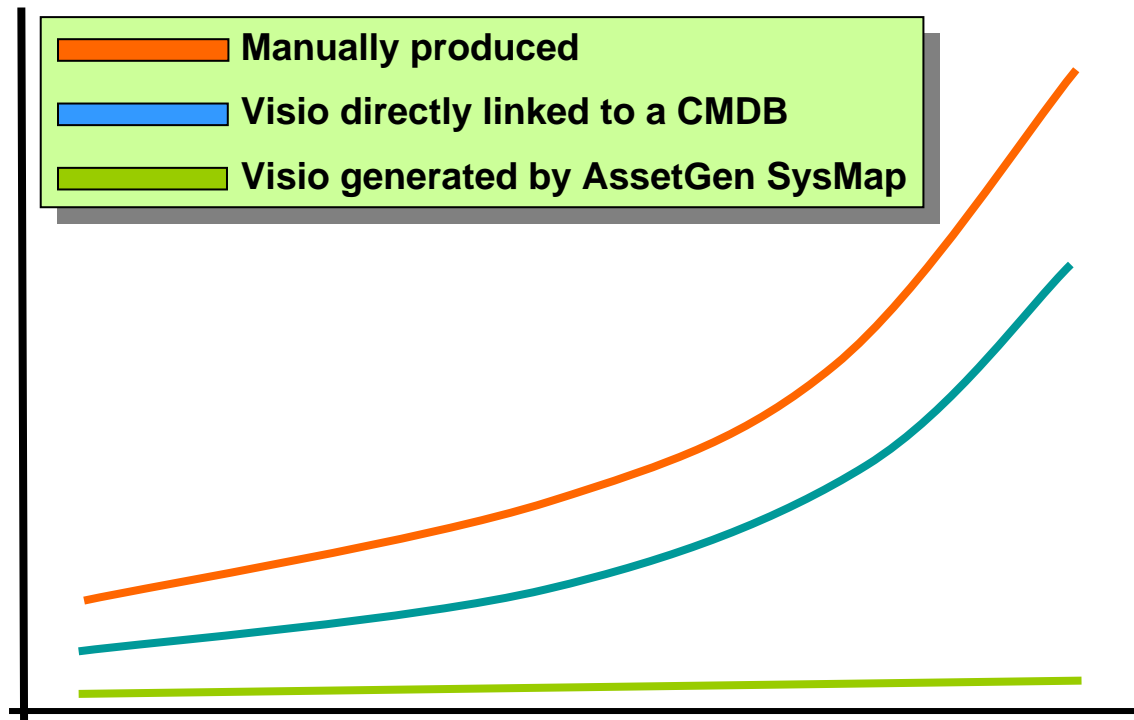
Why create Visio service maps automatically?

With CMDB data directly linked to Visio, time is saved compared to manual typing, layout and verification. Using AssetGen to create the diagrams takes minutes rather than hours (or days) and doesn't require everyone to be expert Visio users.

Time (hrs)

Manually produced

Visio directly linked to a CMDB

Visio generated by AssetGen SysMap

Verifying a service map with embedded data often takes longer than creating it!

Add shapes to page

Add shape data to shapes

Add links / connectors between shapes

Add link / connector data

Add hyperlinks back to CI data

Verify / update existing Visio diagram with CMDB contents

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The Problem of Complexity

As a service gets more complex, the time taken to manually draw, enter data and verify increases exponentially. Without automated diagram production it becomes costly to create and maintain service views – why not use the data in the CMDB?

Time (hrs)

Manually produced

Visio directly linked to a CMDB

Visio generated by AssetGen SysMap

The difference in time taken when drawing complex services with many server and software CIs is significant.

A complex service is produced in seconds with AssetGen.

Number of CIs

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Different Views Required From The CMDB

For an environment with 30 services delivered by 100 servers, you may need more than 30 "top down" service maps. Change impact is best served by bottom up maps created as required.
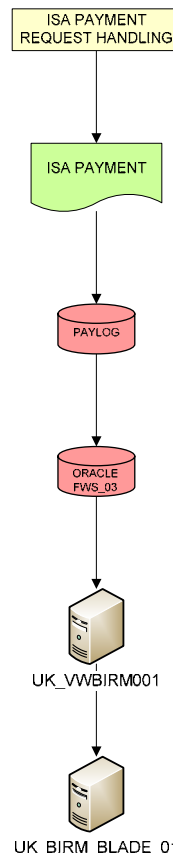
"Top Down"

Starting at a Service or Process, show the supporting CIs.

Typically used by service management

- Validating service CIs
- Identifying risks
- Understanding service architecture
- Availability planning
- Business continuity
- Single points of failure
- Billing and charging
- Transitioning services

Starting at a Server or Application, show the system or service impact

Typically used by technical teams

- Planning a component change
- Submitting change forms
- Incident management
- Incident recovery
- Project planning
- Identifying change ownership
- Predicting fault impact

"Bottom Up"

ISA PAYMENT
REQUEST HANDLING

ISA PAYMENT

PAYLOG

ORACLE
FWS_03

UK_VWBIRM001

UK_BIRM_BLADE_01

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Creating a Visio Service Map - AssetGen

1. Choose a starting CI for the service map

Advanced button for multiple mappings – covered later

2. Select the number of levels to display

5. Press RUN to draw

3. Decide on the search type to display single or multiple services on a diagram

4. Select if you want to draw, compare or update an existing diagram
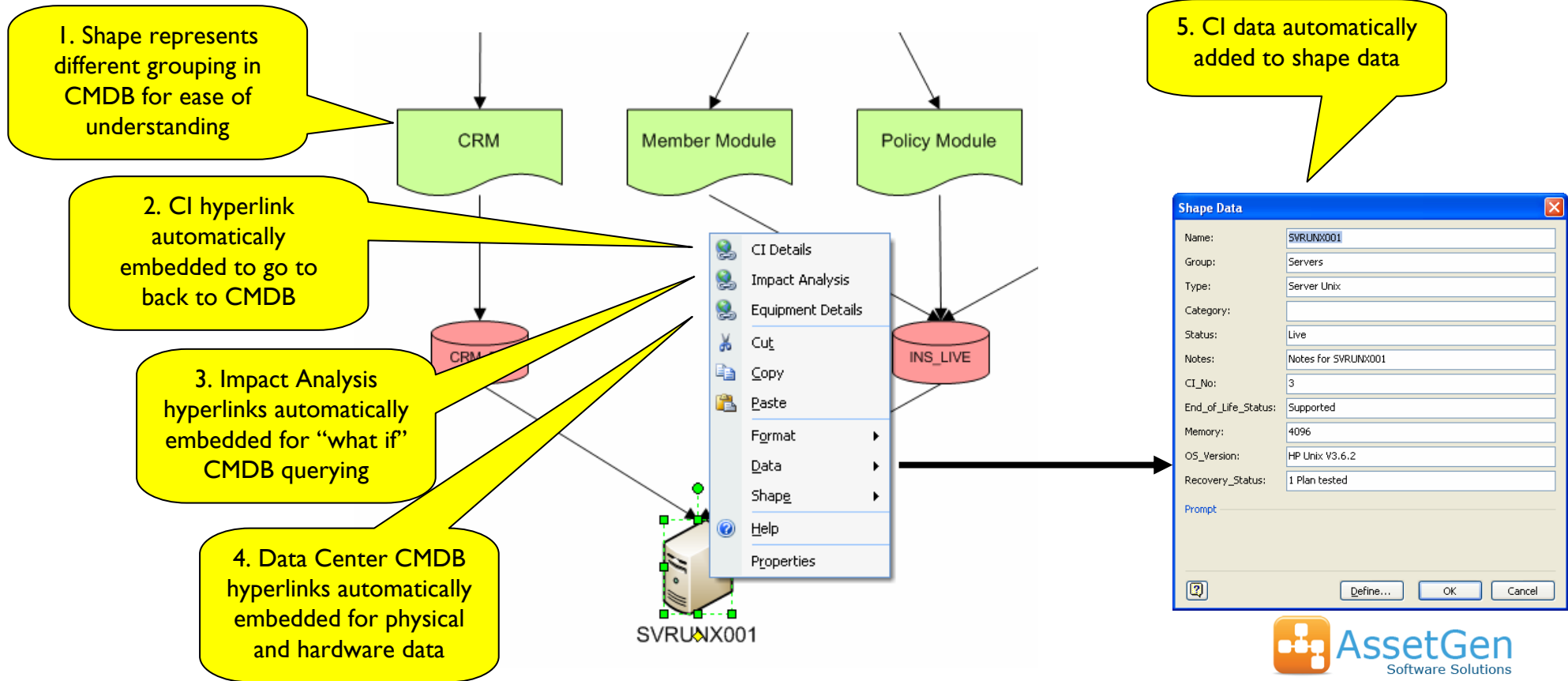
It typically takes a few seconds to draw a service map tailored to your needs;
- with embedded CI data
- with embedded hyperlinks
- with embedded settings
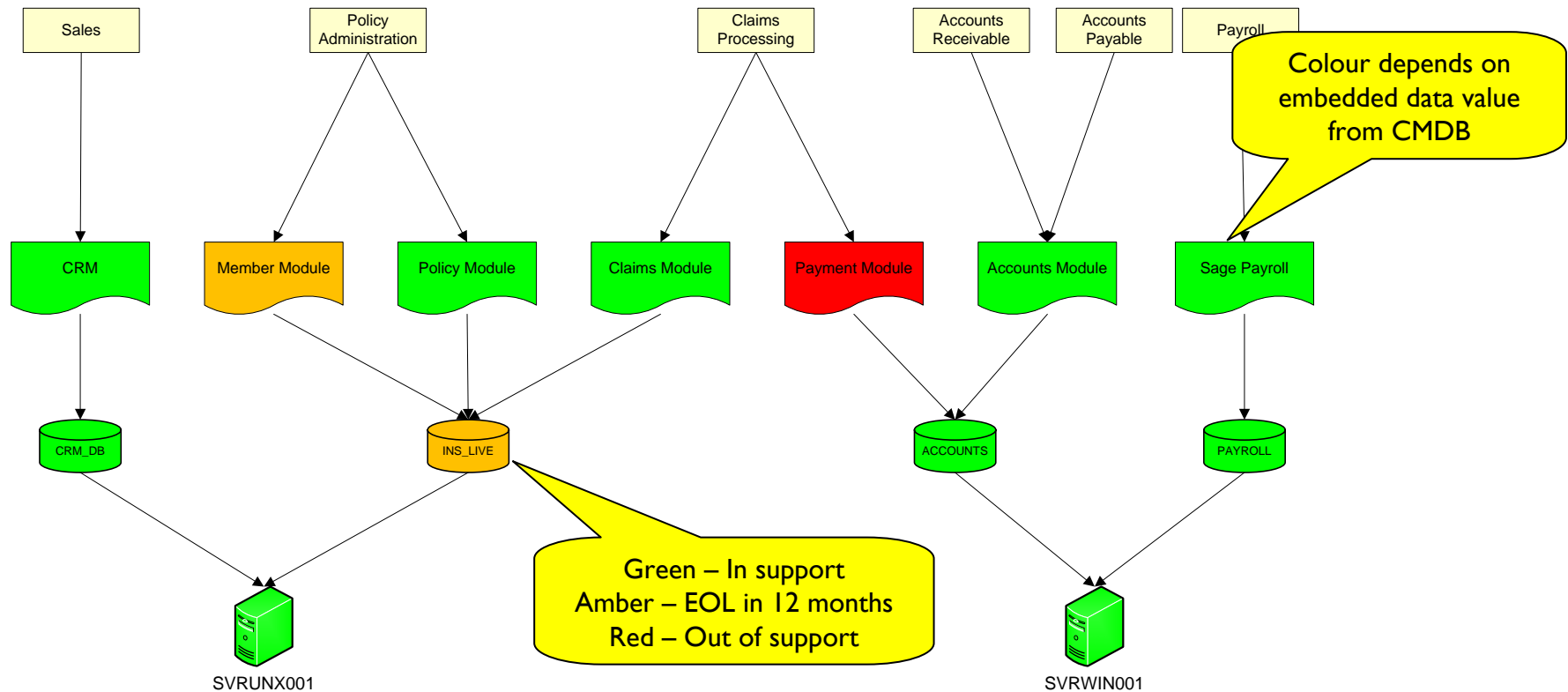- page size scaled appropriately

More than a Picture!

Visio gives us many capabilities that extend beyond just a "picture". AssetGen SysMap generates not just the diagram, but also embeds CI data and hyperlinks back to CMDB.

1. Shape represents different grouping in CMDB for ease of understanding

2. CI hyperlink automatically embedded to go to back to CMDB

3. Impact Analysis hyperlinks automatically embedded for "what if" CMDB querying

4. Data Center CMDB hyperlinks automatically embedded for physical and hardware data

5. CI data automatically added to shape data

CRM

Member Module

Policy Module

CRM

INS_LIVE

Right-click menu:
- CI Details
- Impact Analysis
- Equipment Details
- Cut
- Copy
- Paste
- Format ▶
- Data ▶
- Shape ▶
- Help
- Properties

SVRUNX001

Shape Data

Name:	SVRUNX001
Group:	Servers
Type:	Server Unix
Category:	
Status:	Live
Notes:	Notes for SVRUNX001
CI_No:	3
End_of_Life_Status:	Supported
Memory:	4096
OS_Version:	HP Unix V3.6.2
Recovery_Status:	1 Plan tested

Prompt

Define...   OK   Cancel

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Using Visio to show status

The data graphics feaure of Visio lets us easily see the end of support risk with CIs that make up a service. Really useful for showing risk, recovery, ownership and other status information, but without having to create more diagrams
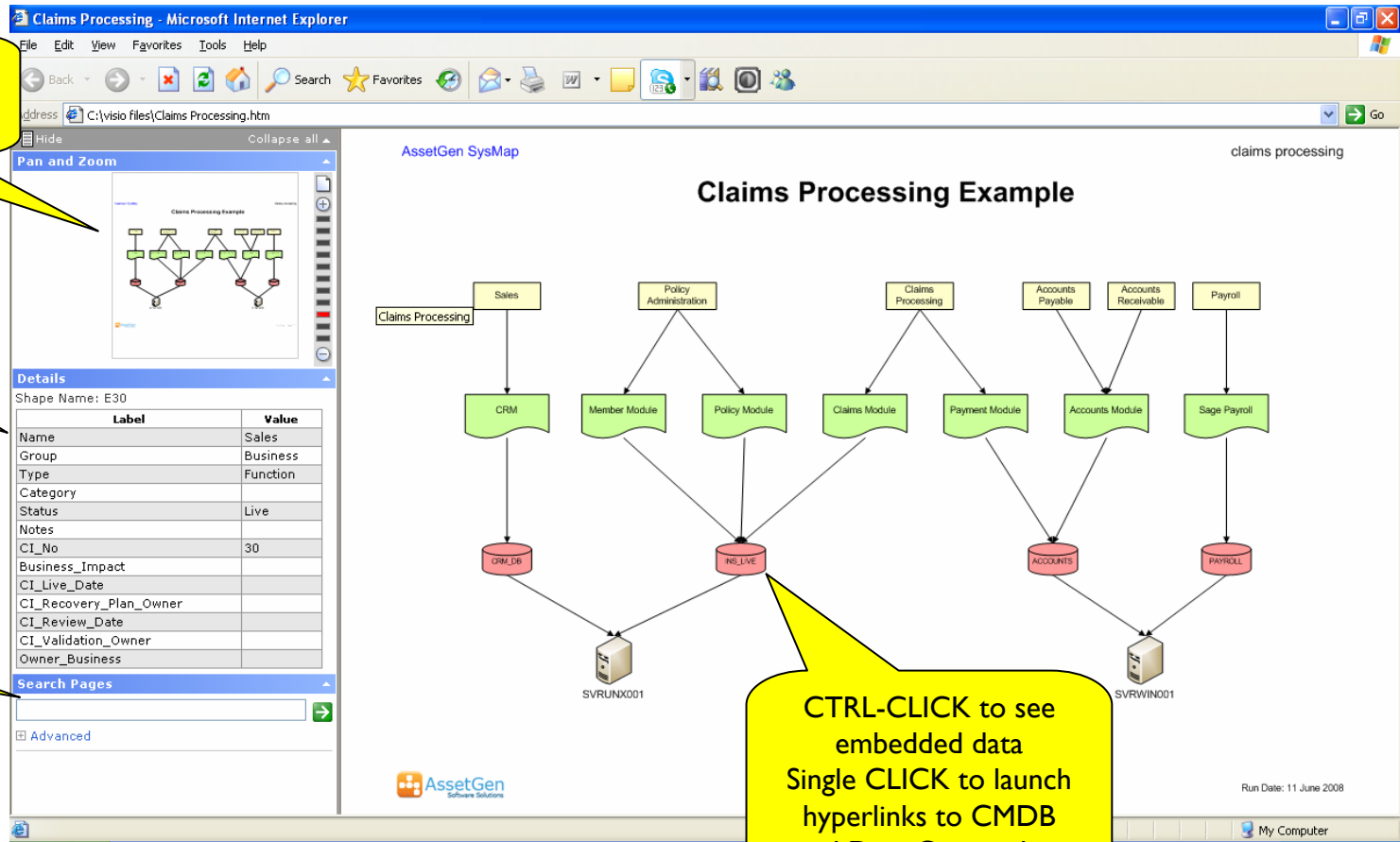

Colour depends on embedded data value from CMDB

Green – In support
Amber – EOL in 12 months
Red – Out of support

SVRUNX001

SVRWIN001

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Service Maps on the Intranet

Saving a Visio service map as a web page, preserves hyperlinks and embedded data.
An easy way to distribute service knowledge to everyone

Pan and Zoom window for control of detail

Embedded CI data displayed

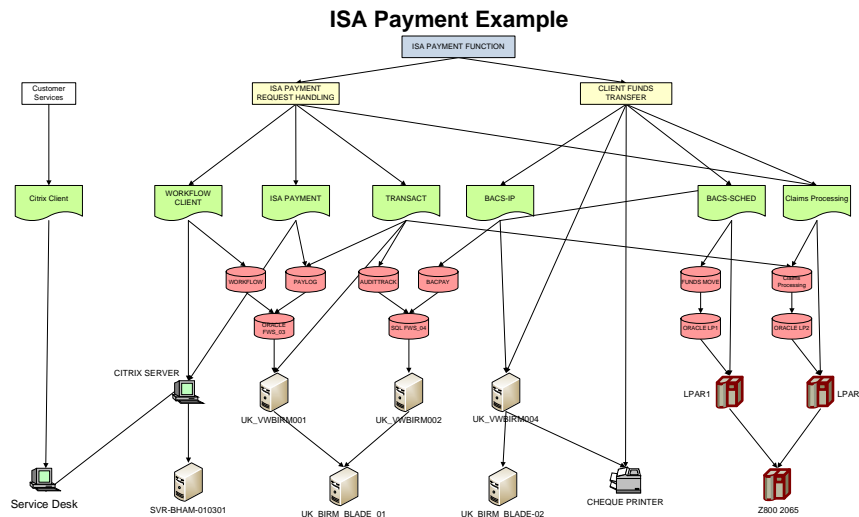**Search on CI names and embedded data across multiple pages**

CTRL-CLICK to see embedded data
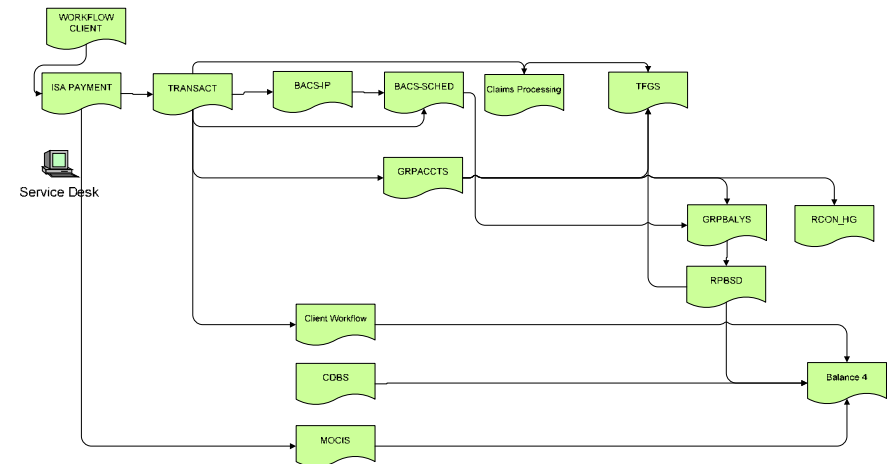**Single CLICK to launch hyperlinks to CMDB and Data Center data**

Multiple Perspectives, Common Data

Using the advanced filtering, multiple mappings can be maintained in AssetGen SysMap and then displayed separately. Ideal for reducing the number of disparate sets covering operational systems. Produce Visio diagrams of either as required
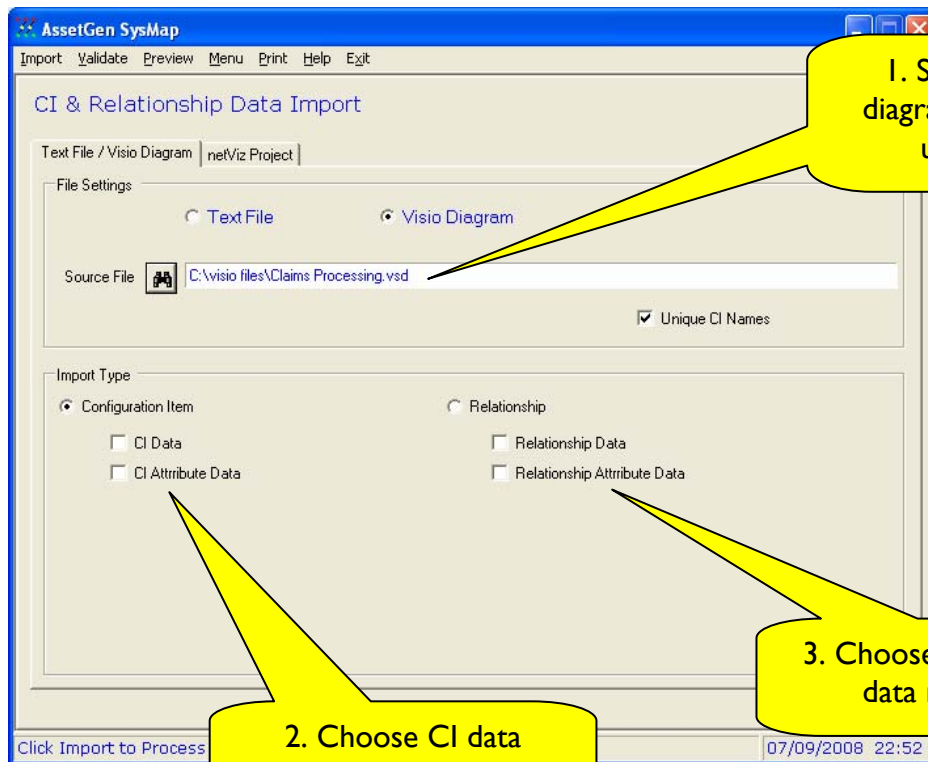
Service View

Data Flow View

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Use Visio for Data Capture

If you draw a service map in Visio, it can be used to update AssetGen SysMap directly. We check for duplication, enabling common components to be re-used in multiple service maps. Other options include .txt, .csv and netViz.
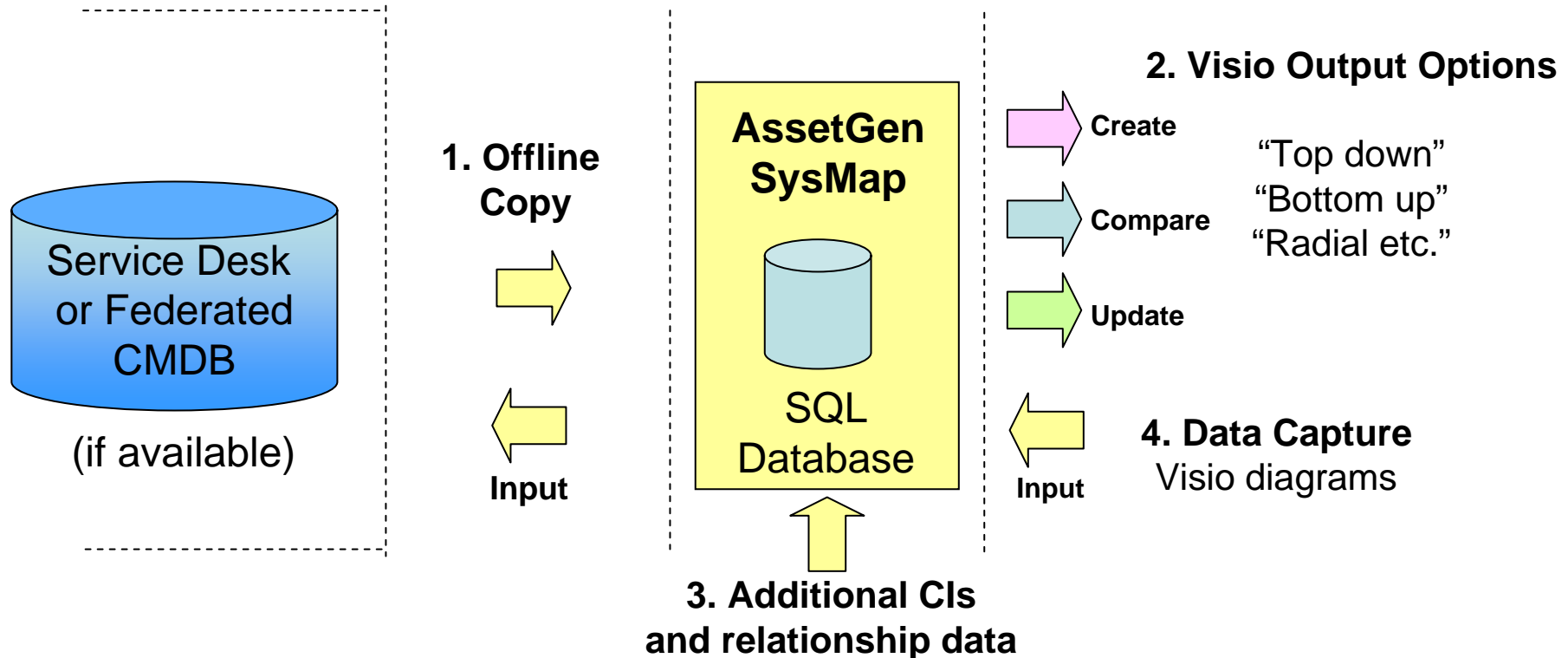

1. Select the Visio diagram to import or update from

2. Choose CI data required

3. Choose relationship data required

Makes it easy to document services one at a time, using AssetGen SysMap to show overlaps, common components and gaps in understanding

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AssetGen SysMap Overview

1. Offline Copy

Service Desk or Federated CMDB

(if available)

Input

AssetGen SysMap

SQL Database

2. Visio Output Options

Create

Compare

Update

"Top down"
"Bottom up"
"Radial etc."

4. Data Capture
Visio diagrams

Input

3. Additional CIs and relationship data

1. An offline copy is taken of the existing CMDB – avoiding CMDB performance issues
2. AssetGen SysMap then produces Visio diagrams under user control
3. Additional CI data or relationships can be added to aid service understanding
4. Visio diagrams can be used for data capture into AssetGen SysMap

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CMDB Visualization Summary

We make it possible to automate the production of complex service maps, from the same data that is used for categorising changes and incidents. The services become easier to understand and effort in communicating with different teams is reduced. Visio can also be used as data capture tool when creating or updating service catalogues.

To finish with, Visio combined with AssetGen SysMap gives

a. A quick, automated way to produce diagrams from existing CMDB data
b. A fast way to validate the accuracy of CMDB data and relationships
c. Service maps which are easily communicated using standard MS office toolsets
d. Consistency of symbols, content and embedded data across maps
e. A method of data capture that avoids manual transcription from and into CMDBs.
f. Great flexibility in the outputs generated
g. Savings in staff time in producing and maintaining service maps

Contact us or our resellers for more information on the AssetGen range
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