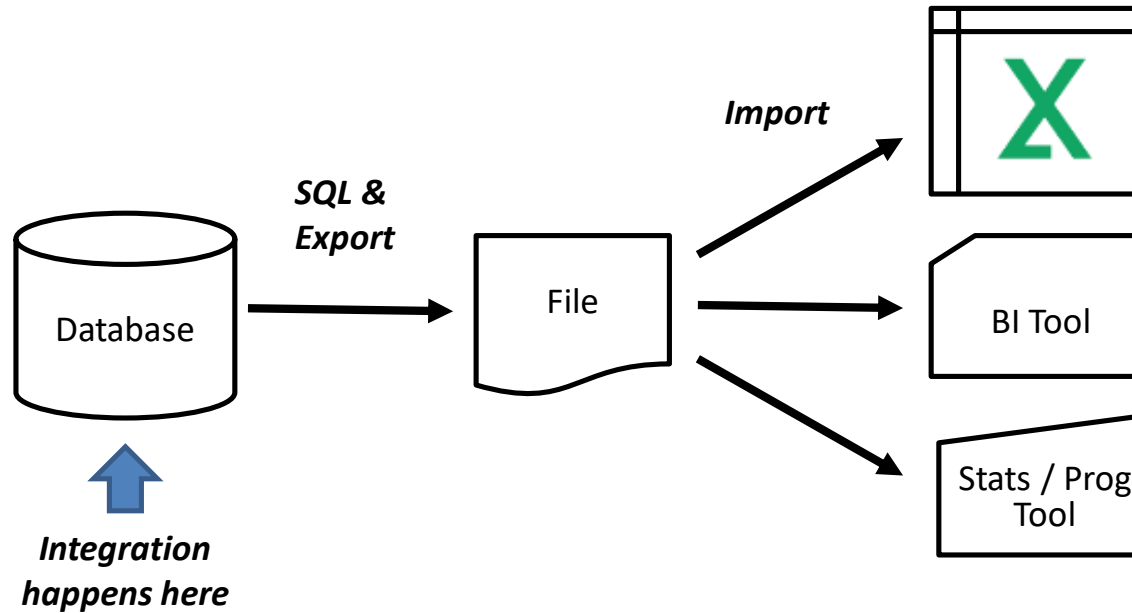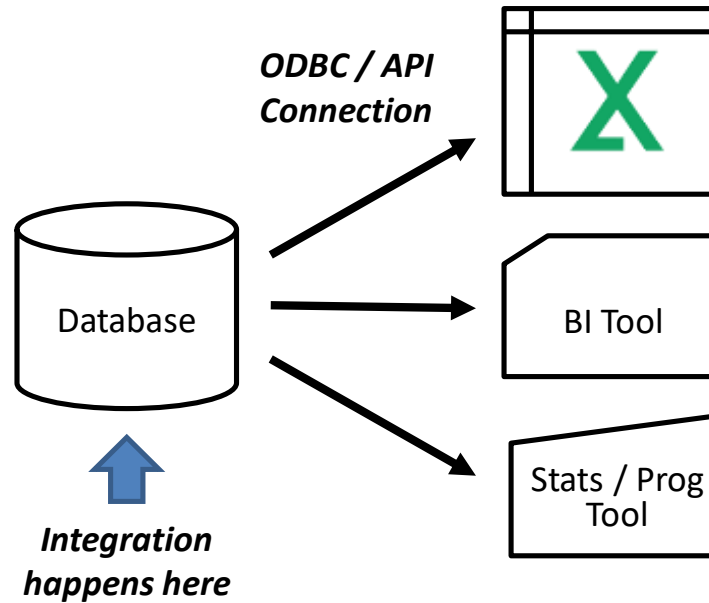# Intermediate File Approach



## Why?

- Analytical tools can be connected directly to databases
- Point in time or offline analysis
- Want same data set in multiple tools
- More visibility into each step

# Direct Connection Approach

**ODBC = Open Database Connectivity**

**API = Application Program Interface**

*ODBC / API Connection*

Database

BI Tool
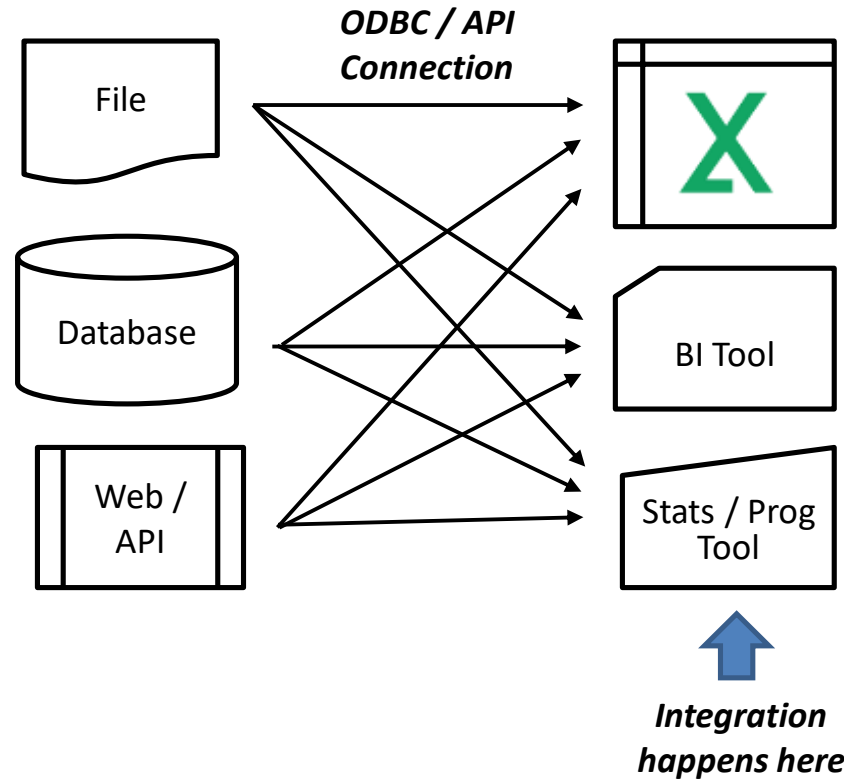
Stats / Prog Tool

*Integration happens here*

## Why?

- Eliminates steps in the process
- Can refresh as data changes

## Why not?

- Requires connection setup
- Extraction validation and offline analysis may be more difficult

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# Downstream Integration Approach

**ODBC / API Connection**

File

Database

Web / API

X

BI Tool

Stats / Prog Tool

*Integration happens here*

**Why?**

- Data exists in multiple locations
- Integration into warehouse doesn't make sense

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# What Tools To Use - Excel

## Excel – The Good

- Good for quick analysis with basic charts and graphs

- Good for sharing with limited set of business partners

- Some operations are easier and more transparent

- Natural flow into Excel-based financial models

## Excel – Challenges

- Not ideal for sharing broadly, standard reports, or dashboards

- Size & performance limitations

# What Tools To Use – BI & Beyond

## BI Tools

- Serve a wide variety of analytical needs

- Best when advanced visualization or exploration are required

- Can have pre-built structures or calculations

- Excellent for standard report distribution

## Statistical Modeling & Programming Tools

- Best for highly sophisticated analysis

- Programming from scratch gives more control, but takes more work

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