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PTC 320 - Consolidating PTC Windchill Systems Through Migration

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Agenda

- Strategic migration use cases

- PTC Tools that support PTC Windchill consolidation

- What's new and improved for supported migration paths

- Future roadmap

- Migration best practices

Overview

Strategic Use Cases Requiring Migration

PTC Tooling in Support of PTC Windchill Consolidation

Value Drivers for System Consolidation

PTC Windchill: the Leading Choice for Enterprise Product Development

- Value comes from standardizing Enterprise PLM on PTC Windchill
  - Single source of truth
  - Improved, consistent business processes
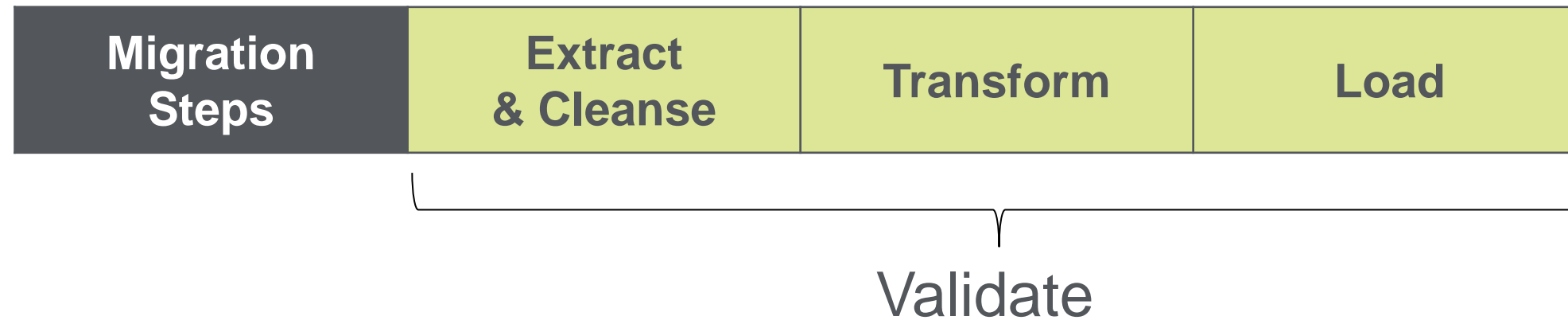 - Lower cost of ownership

- Migration enables PDS strategies that call for convergence to PTC Windchill

Common PDS Roadmap Convergence Scenarios

System Consolidation	Legacy System Replacement	Mergers and Acquisitions	Implement OOTB Solution	Divestitures
• Consolidate distributed PLM environment components that grew over time • Typical: combine CAD Data management and Enterprise Config/Change Mgmt functions	• Replace customer or commercial legacy PLM systems • Usually done to take advantage of common data and process best practices	• Integrate data and processes from new businesses into existing central PLM instance	• De-customize a heavily customized older product release • Especially applies to many older Foundation systems	• Extract portions of PLM environment to combine with an existing PLM or to stand up a new, independent PLM

Migrations follow an Extract, Transform, Load and Validate (ETLV) methodology

ETLV Migration

Migration Steps	Extract & Cleanse	Transform	Load

Validate

- ## Key Questions
  - Who needs to be involved?
  - What infrastructure is needed?
  - What to migrate?
  - How does data map?

- ## And… What can the migration tools do?

PTC's premier migration solution to support system consolidation

- Unify data management system landscapes

- Standardize on out-of-the-box solutions

- Evolve and adapt new design best practices

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The WBM is being used today at multiple accounts

Contents

Used at more than 60+ projects since 2011

- # PTC Windchill extractors
  - Plus mappings for ootb objects

- # Standard neutral data format

- # PTC Windchill 10.x load infrastructure

- # Pre-Load verification

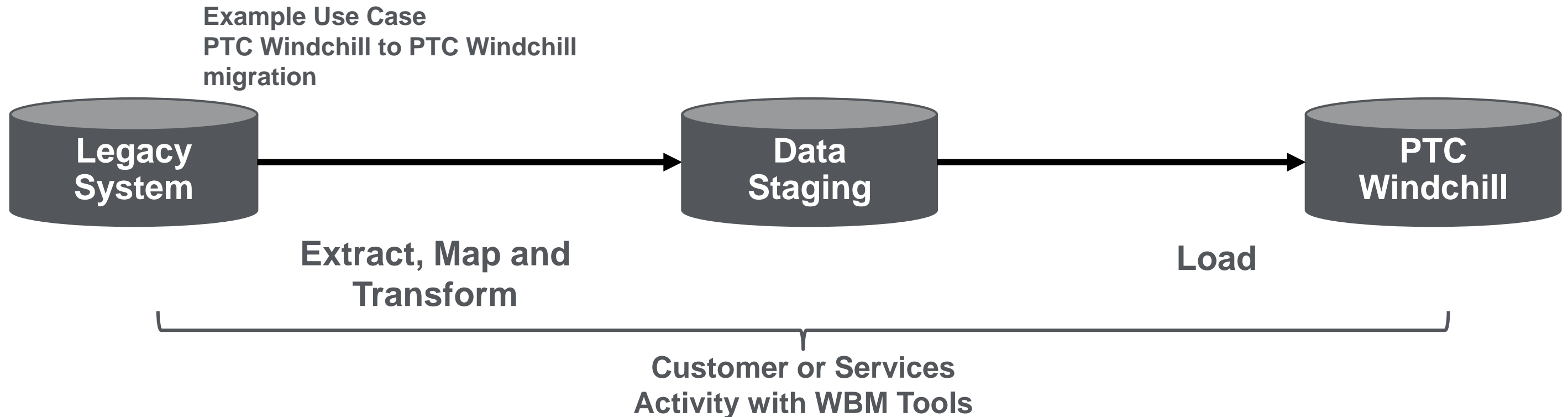- # Post-Load verification

Role in System Consolidation Migrations

WBM loads data into PTC Windchill from a defined staging database

- Pre-Loading activities
  - Target system design and configuration
  - Data mapping

- WBM activities
  - Extract and stage data
  - Control data loading and sequencing
  - Hide data during migration
  - Reveal data after migration
  - Audit migration data completeness

**Example Use Case
PTC Windchill to PTC Windchill
migration**

Legacy System	→	**Data Staging**	→	**PTC Windchill**

Extract, Map and Transform

Load

Customer or Services Activity with WBM Tools

WBM Platform and Product Support

PTC Windchill Product Support: current supported releases

PTC Windchill Bulk Migrator Release	PTC Windchill PDMLink	PTC Windchill ProjectLink
WBM 4.0 M020	Load Into **10.2 M030** Extract From: 9.1 F000+ 10.1 F000+ 10.2 F000+	Load Into 10.2 M030 Extract From: 9.1 F000+ 10.1 F000+ 10.2 F000+
WBM 4.0 M010	Load Into **10.2 M010** **10.2 M020** Extract From: Same as WBM4 M020	Load Into 10.2 M010 10.2 M020 Extract From: Same as WBM4 M020
WBM 2.2 M020	Load Into **10.1 F000+** Extract From: 9.1 F000+ 10.1 F000+	Load Into 10.1 F000+ Extract From: 9.1 F000+ 10.1 F000+

- ## Check PTC.com for the latest Product Compatibility Matrices Documentation

What's New in Current Releases

PTC's Windchill Bulk Migrator

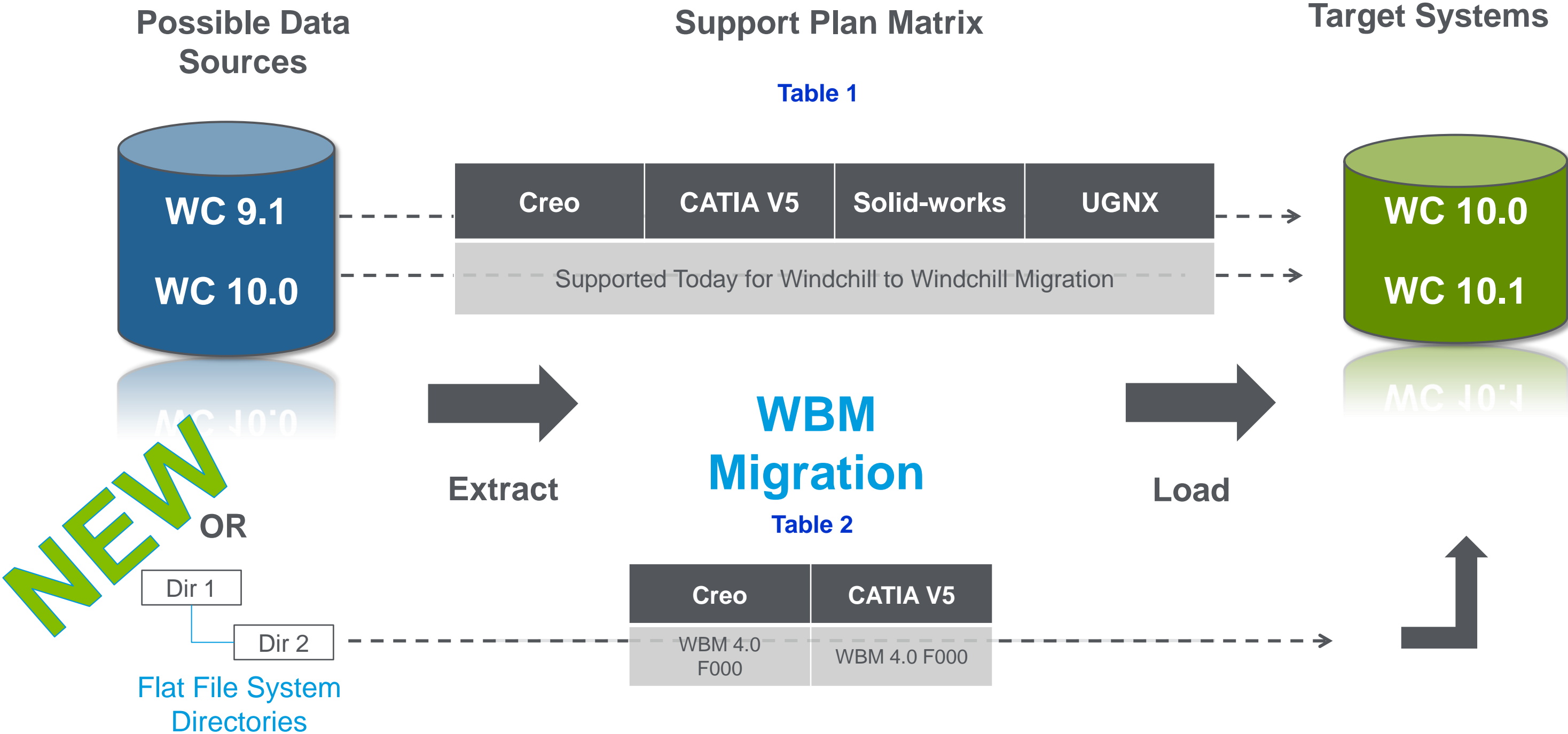# PTC Windchill Bulk Migrator 4.0 – What's New

Support for NEW migration use cases / Lowered migration costs!
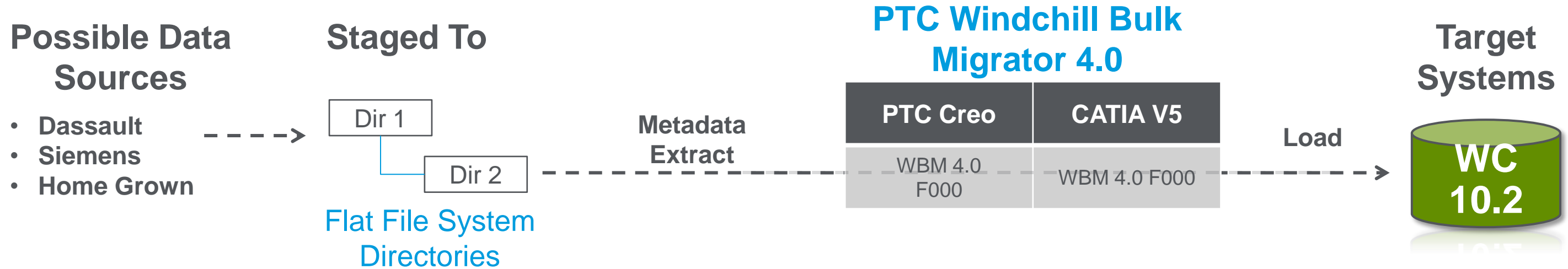
You Asked For…

- **Bulk Load CAD data from folders**
  - For PTC Creo and CATIA V5
  - Distributed directories on separate systems

- **Fewer migration test hassles**
  - Less of "try/fail/fix" migration approach
  - Reduce number and duration of migration rehearsals

- **Extract Data Subsets**
  - Extract portions of data sets, rather than the complete data set

- **Less tool customization, more support for additional object types**

We're Delivering…

- **Exactly!**
  - Pre-processing tools generate, and pass neutral data to the PTC Windchill Bulk Migrator
  - The WBM takes it from there

- **Pre-load data verification**
  - Verify staged data vs. target system admin settings
  - Validate data referential integrity

- **Exactly!**
  - Example: by Container, By Name
  - User input treated as seed data

- **Generic object loaders**
  - No custom loader development needed for most object types

PTC Windchill Bulk Migrator 4.0: MCAD Migration

Possible Data Sources

Support Plan Matrix

Target Systems

Table 1

WC 9.1

WC 10.0

Creo	CATIA V5	Solid-works	UGNX
Supported Today for Windchill to Windchill Migration			

WC 10.0

WC 10.1

Extract

WBM Migration

Load

Table 2

NEW

OR

Dir 1

Dir 2

Flat File System Directories

Creo	CATIA V5
WBM 4.0 F000	WBM 4.0 F000

Bulk load PTC Creo, CATIA V5 CAD data from flat file directories

Possible Data Sources
- Dassault
- Siemens
- Home Grown

Staged To

Dir 1

Dir 2

Flat File System Directories

Metadata Extract

PTC Windchill Bulk Migrator 4.0

PTC Creo	CATIA V5
WBM 4.0 F000	WBM 4.0 F000

Load

Target Systems

WC 10.2

Key capabilities

- File auditing

- Edit attributes, and mapping to the target PTC Windchill system

- Create Neutral Data and secondary attachment

- Analyze data integrity

- Fast Content migration

NEW

Future Roadmap

PTC's Windchill Bulk Migrator

PTC's Windchill Bulk Migrator Product Roadmap

WBM 4.0 M010, plus PTC Windchill 10.2 M010

Migration Of:
- Business Divestiture
- Options and Variants
- MPMLink

WBM 4.0 M020, plus PTC Windchill 10.2 M030

Migration Of:
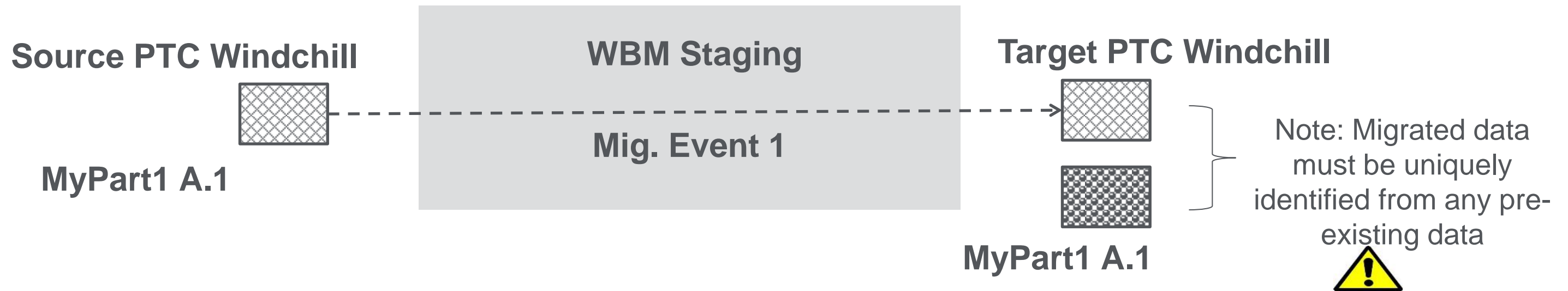- Security Labels & Agreements
- SQLServer 2012

Future Roadmap

Release Themes:
- Merge common components and product structures
- Gradual/Phased migration
- UGNX from file system

- Built to support strategic use cases:
  – PTC Windchill to PTC Windchill Consolidation
  – Legacy System Replacement
  – Model Manager to PTC Windchill migration

PTC Windchill Bulk Migrator Roadmap

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Migration use case under consideration for future releases

Merge of Pre-Existing Common Component

Source PTC Windchill

WBM Staging

Mig. Event 1

Target PTC Windchill

MyPart1 A.1

MyPart1 A.1

Note: Migrated data must be uniquely identified from any pre-existing data
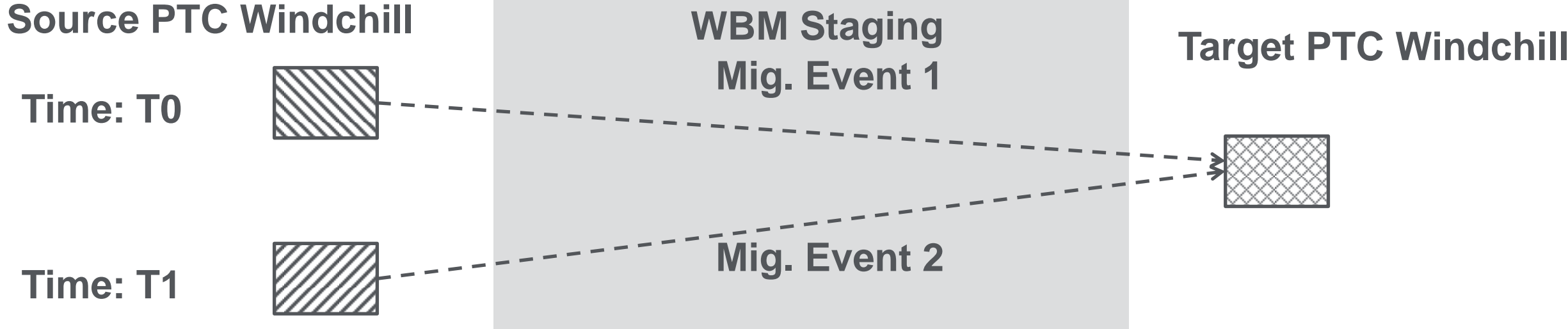
Key

Complete data set to be migrated
Pre-existing data in the target system, not migrated by the WBM

Future plans are to add capabilities for:
- **Append**
- **Overwrite**
- **Keep or Link to existing**

PTC Windchill Bulk Migrator Roadmap

Migration use case under consideration for future releases

Incremental/Delta Migration of Partial Data Sets

Source PTC Windchill

Time: T0

**WBM Staging
Mig. Event 1**

Target PTC Windchill

Time: T1

Mig. Event 2

Future plans are to add this capability plus:
- **Lock in Source**
- **Lock in Target**

After migration has occurred

Key

Partial Data Set 1

Delta Data Set: New or iterated objects from Data Set 1

⚠️ Incremental Data Migration is not yet supported with WBM 4.0

PTC's Windchill Bulk Migrator Product Roadmap

Initiatives to improve supportability and selected use cases

- **Plans underway to merge PTC Windchill and the WBM**
    - Migration support for new PTC Windchill releases at RTM
    - Alignment with the Critical Patch Set (CPS) process
    - Supportive of "continuous delivery" initiatives

- **PTC Windchill to PTC Windchill consolidation**
    - Broader support for ootb object classes

- **Legacy system migrations**
    - Incremental migration for CAD data loads from file system
    - Update CAD non-filebased attributes in staging

Best Practices and Recommendations

PTC Windchill System Consolidation

Best Practices For Complex Migrations

PTC and PTC Partners have broad experience with enterprise migrations

Best Practice

- **Confer with available experts**
  - **Planning and Execution**

- **Ensure in-depth migration testing**
  - **Schedule enough tool unit testing and rehearsal passes**
  - **Use test hardware comparable to production**

- **Use acceptance milestones**
  - **Object model and data mapping code freezes**
  - **In-depth user verification of business use cases**

- **Implement a communication plan**
  - **Migration status dashboard**
  - **Detailed task schedule and completion notification**

Solved Problem

- **Schedule and cost overruns**
- **Unsupported tools and approach**

- **Procedure mistakes requiring roll-back and more rehearsals**
- **Inability to tune, optimize and predict migration performance**

- **"Moving the bar" on data mappings (req. more test passes)**
- **Missed business use cases (req. re-design and more mig. Tests)**

- **Late-game project escalations**
- **No contingency plan**
- **Delayed go-live**
- **Inability to shift resources**

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Q&A

PTC's Windchill Bulk Migrator

- Your feedback is valuable

- Don't miss out on the chance to provide your feedback

- Gain a chance to win an instant prize!

- Complete your session evaluation now