

REINGOLD
PRESENTS

THE 7-10 SPLIT

■ KNOCKING DOWN ■
TOUGH UMBRACO UPDATES



NATE OLMSTED
+
SHOLA OMOJOKUN

REINGOLD

REINGOLD.COM

OUTLINE

Who we are



Background: why upgrade?



The problem



The plan



The challenges



The solution



The aftermath



Next steps





WHO WE ARE



WHO WE ARE

NATE OLMSTED

*Development Lead
Reingold, Inc.*



Umbraco, Episerver/Optimizely, Sitecore,
Adobe Experience Manager



Veteran's Affairs, National Football
League, State of Virginia

SHOLA OMOJOKUN

*Senior Director of Development
Reingold, Inc.*



Umbraco, Xamarin, MAUI, and other
custom .NET solutions



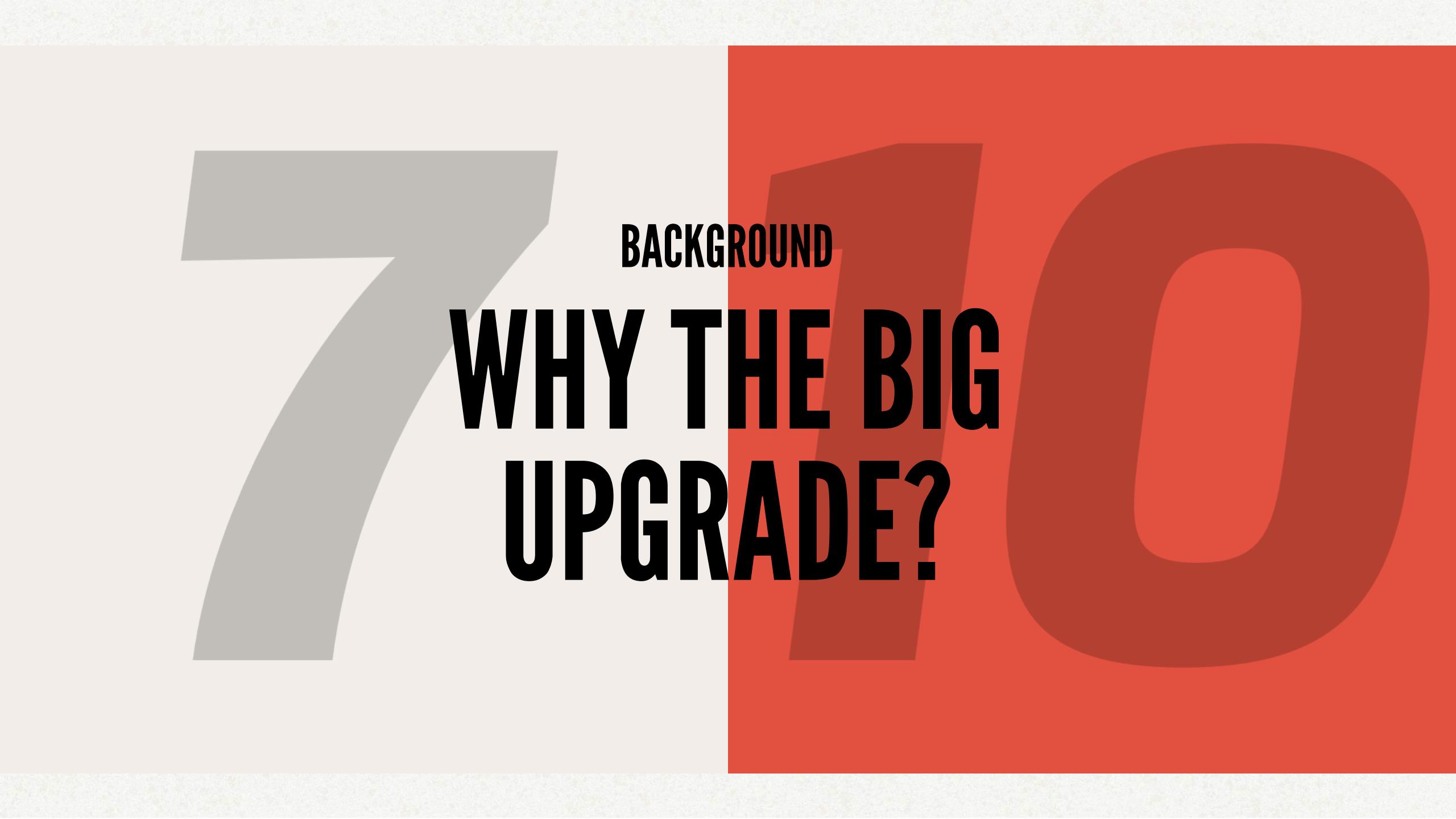
National Football League,
StartYourRecovery.org, U.S. Federal Govt



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We're on a Mission...Yours





BACKGROUND

WHY THE BIG UPGRADE?

WHY THE BIG UPGRADE?

OPS.NFL.COM

**NFL OPERATIONS:
UMBRACO 7**

WHY THE BIG UPGRADE?

NFL OPERATIONS: UMBRACO 7

**UMBRA
CO 7**
END-OF-LIFE:
SEPT 2023

WHY THE BIG UPGRADE?

NFL OPERATIONS: UMBRACO 7

UMBRAKO 7 END-OF-LIFE: SEPT 2023

7 > 8 > 9,
THEN 10
IN JUNE 2022

WHY THE BIG UPGRADE?

NFL OPERATIONS: UMBRACO 7

UMBRA
CO 7 END-OF-LIFE: SEPT 2023

7 > 8 > 9, THEN 10 IN JUNE 2022

WE THOUGHT
WE WERE
PREPARED...

THE PROBLEM

THE PROBLEM

THE PROBLEM

FROM UMBRACO 7 > 10

CORE DB SCHEMA CHANGES
OBSOLETE DATA TYPES
ID FORMATS

THE PROBLEM

FROM UMBRACO 7 > 10

PLUGINS NO LONGER SUPPORTED

**ARCHETYPE 'INCEPTION'
NUPICKERS**

THE PROBLEM

FROM UMBRACO 7 > 10

PLUGINS WITH SCHEMA UPDATES

OEMBED

BREAKING CHANGES IN APIs

MIGRATING TO DOTNET 5 (AND 6)



THE PLAN



THE PLAN

MIGRATE DATA:

ARCHETYPES > NESTED CONTENT
NUPICKERS > NATIVE PICKERS
OEMBED PROPERTIES > NEW FORMAT

THE PLAN

PLUGIN CONVERSIONS

**DO VERSION-SPECIFIC
UPGRADES TO
UMBRACO 8, 9, & 10**

THE PLAN

PLUGIN CONVERSIONS
VERSION SPECIFIC UPGRADES

**REGAIN LOST
FUNCTIONALITY:
NESTING CONTENTLY**

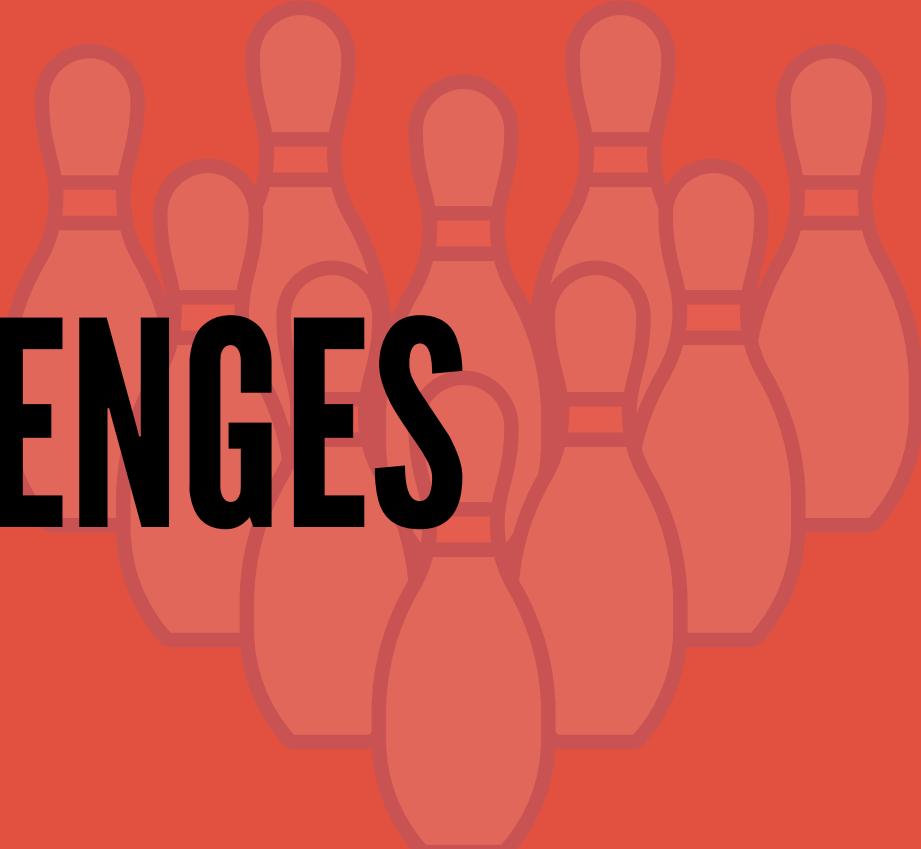
THE PLAN

PLUGIN CONVERSIONS
VERSION SPECIFIC UPGRADES
REGAIN LOST FUNCTIONALITY

REGRESSION TESTING: CYPRESS + PERCY



THE CHALLENGES





THE CHALLENGES

LEARNING TIME!

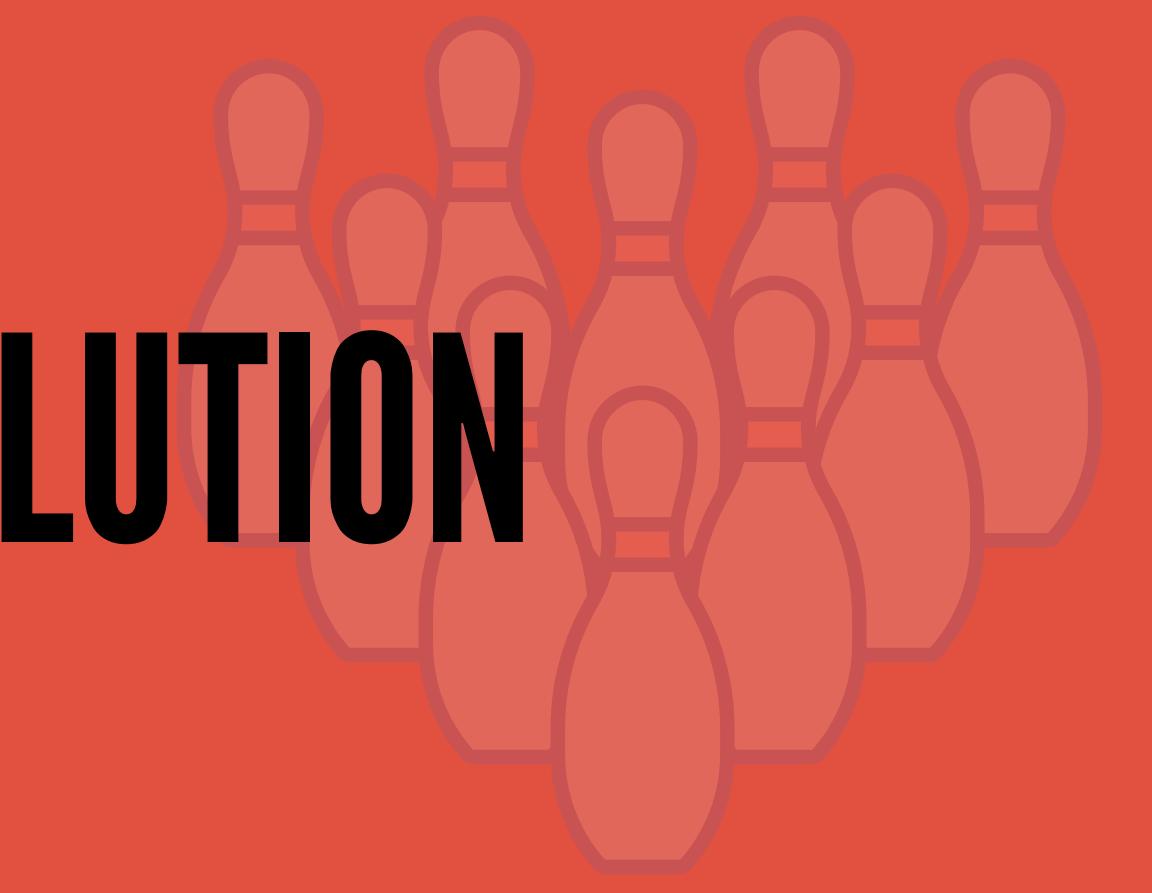
THE CHALLENGES

LEARNING TIME!

PROPERTY DATA FORMATS FROM V7-10, CORE API
ARCHETYPE'S DATA/CLASS STRUCTURE AND API
EDGE CASES DUE TO MISSING OR OBSOLETE DATA
IDENTIFYING THE CORRECT ORDER OF OPERATIONS



THE SOLUTION





THE SOLUTION

```
1  using System;
2  using System.Collections.Generic;
3  using System.IO;
4  using System.Linq;
5  using System.Net;
6  using System.Reflection;
7  using System.Text.RegularExpressions;
8  using System.Web;
9  using System.Web.Hosting;
10 using System.Web.Mvc;
11 using Archetype.Models;
12 using HtmlAgilityPack;
13 using Newtonsoft.Json;
14 using Newtonsoft.Json.Linq;
15 using nuPickers.Shared.DotNetDataSource;
16 using nuPickers.Shared.Editor;
17 using nuPickers.Shared.JsonDataSource;
18 using Our.Umbraco.UnVersion;
19 using Our.Umbraco.UnVersion.Services;
20 using Umbraco.Core;
21 using Umbraco.Core.Models;
22 using Umbraco.Core.Services;
23 using Umbraco.Web;
24 using Umbraco.Web.Mvc;
25
26 namespace NFLOpsSite.Migration
27 {
28     public class MigrationController : SurfaceController
29     {
30         const string ARCHETYPE_PROPERTY_EDITOR = "Imulus.Archetype";
31         const string LINKPICKER_PROPERTY_EDITOR = "Gibe.LinkPicker";
32         const string LINKPICKER_REPLACEMENT_DATATYPE_NAME = "Single Url Picker";
33         const string NESTED_CONTENT_PROPERTY_EDITOR = "Umbraco.NestedContent";
34         const string CONTENT_TYPE_FOLDER_NAME = "Blocks";
35         const string DATA_TYPE_FOLDER_NAME = "Nested Content";
36         const string TAB_NAME = "Content";
37         const string PROPERTY_SUFFIX = "Old";
38         const string NESTING_CONTENTLY = "NestingContently";
39
40         //nupickers
```

THE SOLUTION

**4 UMBRACO
INSTANCES**

**3 SETS OF
MIGRATION SCRIPTS**

1 SCARY CHECKLIST

THE SOLUTION

Start
with
Umbraco
7 db bac

UpdateContent

And
DataType

Updated
Content
Types

move gamedata
doctype to
Doc types'

Aside
side -
normal

Convert-
Archetypes

Umbraco 8
migration
scripts

Upgrade
to
Umbraco 8

Mode -
normal

Convert
Nupicker

SetElement
Types - sets
block types
as elements

Upgrade
to
Umbraco 9.4

Create
Nupicker

Talk to other
humans.

And

republish stats
central,
formations
(en & es)

datatypes to not
be mandatory

Copy
Nupicker

Publish
Content

Umbraco
8.1.6

THE SOLUTION

1.

CLEANUP

(RECYCLE BIN, TRIM VERSIONS, UPDATE OBSOLETE DATATYPES)

THE SOLUTION

1. CLEANUP

2.

AUTOGENERATE

THE SOLUTION

1. CLEANUP

2.

**AUTOGENERATE
ARCHETYPES > DOC/DATATYPES**

THE SOLUTION

1. CLEANUP

2.

**AUTOGENERATE
ARCHETYPES > DOC/DATATYPES
NUPICKER > NATIVE**

THE SOLUTION

1. CLEANUP

2. AUTOGENERATE

3.

COPY OVER DATA
FROM ABOVE STEP

THE SOLUTION

- 1. CLEANUP**
- 2. AUTOGENERATE**
- 3. COPY DATA**

4.

EDGE CASES

THE SOLUTION (CONTINUED)

UPGRADE PATH

VERSION SPECIFIC UPGRADE PATH:

7.LATEST > 8.1.6 > 8.LATEST > 9.4 > 10.1

- **UPGRADE V7 DATABASE TO UMBRACO 8.1.6**
 - **UMBRAOC 8 SCRIPT - NESTED CONTENT > ELEMENT TYPES**

THE SOLUTION (CONTINUED)

UPGRADE PATH

VERSION SPECIFIC UPGRADE PATH:

7.LATEST > 8.1.6 > 8.LATEST > 9.4 > 10.1

- UPGRADE V7 DATABASE TO UMBRACO 8.1.6
 - UMBRACO 8 SCRIPT - NESTED CONTENT > ELEMENT TYPES
- UPGRADE TO UMBRACO LATEST V8
 - ONE LAST SCRIPT - PUBLISH CONTENT!

THE SOLUTION (CONTINUED)

UPGRADE PATH

- UPGRADE TO UMBRACO 9.4
 - .NET 5 (DAYS OF WORK)

THE SOLUTION (CONTINUED)

UPGRADE PATH

- UPGRADE TO UMBRACO 9.4
 - .NET 5 (DAYS OF WORK)
- UPGRADE AGAINST BACKUP OF PROD, DEPLOY TO NEW INSTANCE, AND PIVOT DNS

THE SOLUTION (CONTINUED)

UPGRADE PATH

- UPGRADE TO UMBRACO 9.4
 - .NET 5 (DAYS OF WORK)
- UPGRADE AGAINST BACKUP OF PROD, DEPLOY TO NEW INSTANCE, AND PIVOT DNS
- UPGRADE TO UMBRACO 10.1
 - MORE (MINOR) BREAKING CHANGES



THE AFTERMATH

THE AFTERMATH

THE AFTERMATH

THE UPGRADE TO UMBRACO 10 WAS COMPLETED ON BUDGET WITH ALL WEBSITE FUNCTIONALITY INTACT

BACKOFFICE CAVEATS:

- NATIVE CONTROLS LACK KEY/VALUE OF NUPICKERS
- NESTING CONTENTLY REQUIRED TO PRESERVE EDITOR FUNCTIONALITY

NEXT STEPS

NEXT STEPS

- GOAL: KEEP FELLOW UMBRACO DEVELOPERS WITHIN THE COMMUNITY
- WE PLAN TO RELEASE THE SOURCE CODE TO GITHUB FOR COLLABORATION
- CURRENTLY HANDLES: ARCHETYPES WITH UMBRACO, NUPICKER, AND OEMBED

NEXT STEPS

- GOAL: KEEP FELLOW UMBRACO DEVELOPERS WITHIN THE COMMUNITY
- WE PLAN TO RELEASE THE SOURCE CODE TO GITHUB FOR COLLABORATION
- CURRENTLY HANDLES: ARCHETYPES WITH UMBRACO, NUPICKER, AND OEMBED
 - WE INTEND TO MAKE THE CODE PLUGGABLE
 - CREATE DOCUMENTATION

SHOUTOUTS

SHOUTOUTS

THE AUTHORS OF
DIPLO GOD MODE

THE AUTHORS OF
NESTING CONTENTLY

AND OF COURSE



umbraco

~PIN~

(I MEAN ~FIN~ IS THAT SHOEHORNING IN THE LAST PUN?)



REINGOLD.COM/CONTACT-US

• <https://github.com/reingold-org> •



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