



 **2020 February Summit**


Summit @ San Antonio Riverwalk  
February 12-14, 2020

Please send feedback and future discussions to:  
[kurt@digonsystems.com](mailto:kurt@digonsystems.com)

 **ERDC** 

1



 **KBI Workshop**

Thursday, February 12 (1 hour)

This workshop will identify how to set Knowledge-Based Inspection parameters to generate a list of sections BUILDER suggests for inspections.

 **ERDC** 

2



## KBI Theory

### Smarter schedule of inspections

- BUILDER knows about what you have, when it will be unreliable and when you plan on replacing it.
- Could not a system with all that information create a “Knowledge-Based Inspection” schedule to limit the scope of your inspections?

© 2018 DIGON Systems. All Rights Reserved.

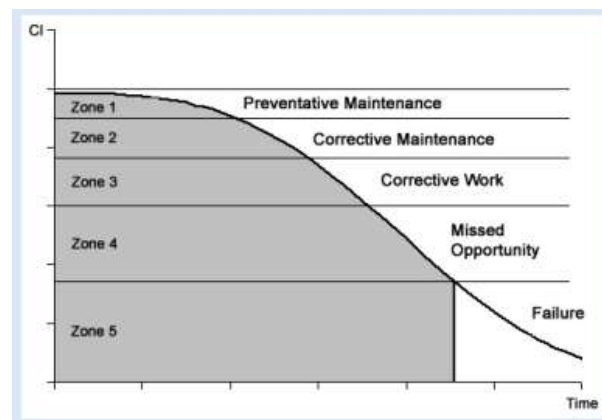
3

3



## Inspection Need Zones

### Five Areas for Planning



© 2018 DIGON Systems. All Rights Reserved.

4

4



## Zone Boundaries

Flexibility on the Condition Index border values

	CI Lower
Zone 1:	<input type="text" value="75"/>
Zone 2:	<input type="text" value="65"/>
Zone 3:	<input type="text" value="60"/>
Zone 4:	<input type="text" value="50"/>
Zone 5:	<input type="text" value="0"/>

© 2018 DIGON Systems. All Rights Reserved.

5

5



## Other Settings: Inspection Interval

Years between inspections

- Age-based (non inspections) will always fail this test

Max Insp Interval
<input type="text" value="3"/>
<input type="text" value="2"/>
<input type="text" value="2"/>
<input type="text" value="5"/>
<input type="text" value="0"/>

© 2018 DIGON Systems. All Rights Reserved.

6

6



## Inspections in Zone

Years between inspections

# Insp's in Zone
2
2
2
2

© 2018 DIGON Systems. All Rights Reserved.

7

7



## Degradation Factor

Inspections showing rapid decay generate inspections

Degradation Factor
3.00
2.00
2.00
3.00

© 2018 DIGON Systems. All Rights Reserved.

8

8



## Specific Settings Per Standard

Zone boundaries and settings are set for every standard

Standard Name:

Work Triggers | Inspection Triggers

Condition Trends

	CI Lower	Max Insp Interval	# Insp's in Zone	Degradation Factor
Zone 1:	<input type="text" value="75"/>	<input type="text" value="4"/>	<input type="text" value="1"/>	<input type="text" value="5.00"/>
Zone 2:	<input type="text" value="65"/>	<input type="text" value="3"/>	<input type="text" value="1"/>	<input type="text" value="3.00"/>
Zone 3:	<input type="text" value="60"/>	<input type="text" value="3"/>	<input type="text" value="1"/>	<input type="text" value="3.00"/>
Zone 4:	<input type="text" value="50"/>	<input type="text" value="5"/>	<input type="text" value="1"/>	<input type="text" value="5.00"/>
Zone 5:	<input type="text" value="0"/>	<input type="text" value="0"/>		

Standard Name:

Work Triggers | Inspection Triggers

Condition Trends

	CI Lower	Max Insp Interval	# Insp's in Zone	Degradation Factor
Zone 1:	<input type="text" value="75"/>	<input type="text" value="2"/>	<input type="text" value="2"/>	<input type="text" value="0.00"/>
Zone 2:	<input type="text" value="65"/>	<input type="text" value="2"/>	<input type="text" value="2"/>	<input type="text" value="0.00"/>
Zone 3:	<input type="text" value="60"/>	<input type="text" value="2"/>	<input type="text" value="2"/>	<input type="text" value="0.00"/>
Zone 4:	<input type="text" value="50"/>	<input type="text" value="5"/>	<input type="text" value="2"/>	<input type="text" value="0.00"/>
Zone 5:	<input type="text" value="0"/>	<input type="text" value="0"/>		

© 2018 DIGON Systems. All Rights Reserved.

9

9



## Generation

Create Inspection Schedule

- Run up to a 10 year inspection plan

https://my.buildersoftware.net/Navigator.aspx?scrhgt=962&scwid=1920

SMS - Condition

SUSTAINMENT MANAGEMENT SYSTEMS WITH BUILDER

Work Configuration | Work Plan | Scenarios | Reports | Tools

Inventory | Reports

Condition


All Search by Name or Number...

75 - Training Area

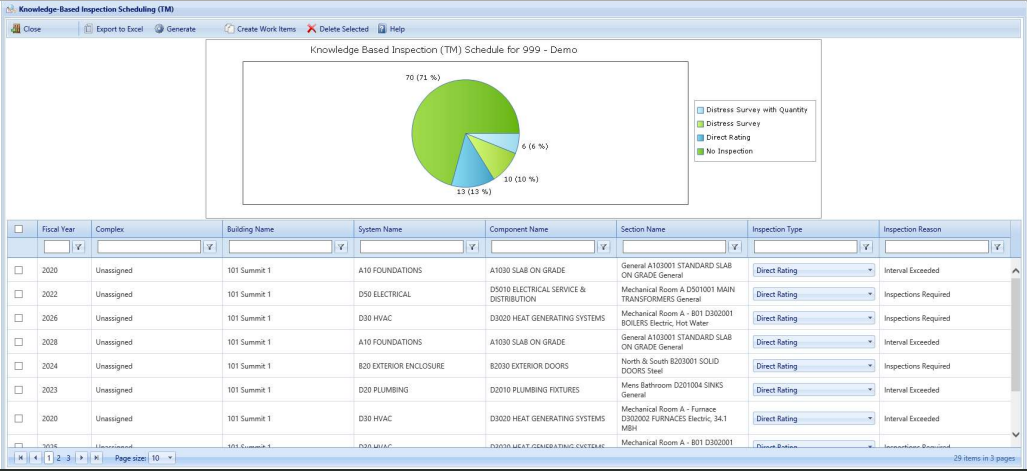
© 2018 DIGON Systems. All Rights Reserved.

10

10



# Results




The screenshot displays the 'Knowledge Based Inspection (TM) Schedule for 999 - Demo' window. A pie chart shows the distribution of inspection types: 70 (71%) for 'Distress Survey with Quantity', 13 (13%) for 'Distress Survey', 6 (6%) for 'Direct Rating', and 10 (10%) for 'No Inspection'. Below the chart is a table with columns for Fiscal Year, Complex, Building Name, System Name, Component Name, Section Name, Inspection Type, and Inspection Reason.

Fiscal Year	Complex	Building Name	System Name	Component Name	Section Name	Inspection Type	Inspection Reason
2020	Unassigned	101 Summit 1	A10 FOUNDATIONS	A1030 SLAB ON GRADE	General A103001 STANDARD SLAB ON GRADE General	Direct Rating	Interval Exceeded
2022	Unassigned	101 Summit 1	D50 ELECTRICAL	D5010 ELECTRICAL SERVICE & DISTRIBUTION	Mechanical Room A D501001 MAIN TRANSFORMERS General	Direct Rating	Inspections Required
2026	Unassigned	101 Summit 1	D30 HVAC	D3020 HEAT GENERATING SYSTEMS	Mechanical Room A - B01 D302001 B01B01 Electric Hot Water	Direct Rating	Inspections Required
2028	Unassigned	101 Summit 1	A10 FOUNDATIONS	A1030 SLAB ON GRADE	General A103001 STANDARD SLAB ON GRADE General	Direct Rating	Interval Exceeded
2024	Unassigned	101 Summit 1	B20 EXTERIOR ENCLOSURE	B2030 EXTERIOR DOORS	North & South B203001 SOLID EXTERIOR Steel	Direct Rating	Inspections Required
2023	Unassigned	101 Summit 1	D20 PLUMBING	D2010 PLUMBING FIXTURES	Mens Bathroom D201004 SINKS General	Direct Rating	Interval Exceeded
2020	Unassigned	101 Summit 1	D30 HVAC	D3020 HEAT GENERATING SYSTEMS	Mechanical Room A - Furnace D302000 FURNACES Electric, 34.1 MBH	Direct Rating	Interval Exceeded

© 2018 DIGON Systems. All Rights Reserved. 1 1

11



# Using the Inspections

### Export to Excel

- Put them into a CMMS / Work Management System

### Copy into Work Items

- Manage your inspection work just like repair and replacement work

© 2018 DIGON Systems. All Rights Reserved. 1 2

12



## Next Steps

---

Will this be for you?

- Custom Report
- Work Configuration

13



## Open Question For the Floor

---

Can the KBI replace a full 3 or 5-year FCI policy?

14