



APPLICATION NOTE

RT ADR

ADR analysis of film and CR weld images of shipbuilding structures

- Company operates a shipyard where various ships are manufactured.
- Welds on ship hulls are inspected with radiography and company manually analyzes X-Ray film images and CR images to gauge hull condition.
- Manual analysis is time consuming and results are not consistent.

Solution

- Weld x-ray images are uploaded into DAI's ADR software on a standalone system.
- ADR system is customized for company's data and standards to identify defects.
- Company processes multiple inspection data images at a given time and generate reports based on results.

Impact

- Auto detection of defects significantly reduces analysis time of images.
- Company has processed 500 radiographic weld images in an hour.
- Clear indication of defects in welds allows company to make data driven decisions.

The screenshot displays the software interface. At the top, there's a 'Control System' header with progress indicators for 78% and 40%. Below this is a large image of a container ship. The main part of the interface shows two side-by-side X-ray images of a weld. The left image is labeled 'Enhanced Image' and the right is 'Mapped Image'. The 'Mapped Image' has several red circles highlighting detected defects. To the right of the images is a table with columns for 'Files Imported', 'Results', and 'Defect Cluster Data'. The 'Results' column is further divided into 'Tested', 'Accepted', and 'Rejected'. Below this is a table with columns for 'Sl No', 'Image Name', and 'Accept/F'. The table contains 15 rows of data.

Files Imported	Results	Defect Cluster Data
Tested 31	Accepted 10	Rejected 21
Select Date : 22-09-2023	Select Data : Method1	
Sl No	Image Name	Accept/F
1	0-XRayTest	Reject
2	1-XRayTest	Reject
3	1-Y12707_W2222...	Accept
4	10-XRayTest	Reject
5	10A-XRayTest	Accept
6	11-XRayTest	Reject
7	11C-XRayTest	Accept
8	12-XRayTest	Reject
9	16-03-2022_9-XRa...	Reject
10	19-09-2022_5-XRa...	Reject
11	19-09-2022_7-XRa...	Reject
12	19-XRayTest	Reject
13	1A-XRayTest	Accept
14	1B-XRayTest	Accept
15	2-XRayTest	Reject