Universal Debt Document Extraction Results
Using GPT-4.1-nano Model

EDGAR-AI Extraction System

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1 Overview

This document presents the extraction results from two debt agreements using the universal debt extraction prompt with the GPT-4.1-nano model. The extractions demonstrate the system's ability to handle both simple and complex debt instruments with consistent JSON output structure.

1.1 Documents Processed

1. **RF Monolithics Commercial Loan** - A straightforward $900,000 commercial real estate loan

2. **Syndicated Credit Agreement** - A complex $171 million multi-facility credit agreement

1.2 Extraction Metrics

Metric	RF Monolithics	Syndicated
Document Size	42,182 chars	395,249 chars
Processing Time	7.0 seconds	13.6 seconds
Total Facilities	$900,000	$171,000,000
Number of Parties	2	7

2 RF Monolithics Loan - Extraction Results

> **Document Metadata**
>
> - **Type**: Commercial Loan Agreement
>
> - **Effective Date**: April 13, 2009
>
> - **Model**: gpt-4.1-nano
>
> - **Processing**: 7.0 seconds for 42,182 characters

2.1 Full JSON Output

```
1  {
2    "metadata": {
3      "document_name": "rf_monolithics_loan",
```

```
 4        "document_path": "rf_monolithics_loan.txt",
 5        "extraction_timestamp": "2025-08-01T19:03:47.447758Z",
 6        "model": "gpt-4.1-nano",
 7        "processing_time_seconds": 7.023764,
 8        "document_length": 42182,
 9        "prompt_used": "FINAL_universal_debt_extraction_prompt.md"
10      },
11      "extracted_data": {
12        "document_type": "commercial loan agreement",
13        "effective_date": "2009-04-13",
14        "obligations": {
15          "parties": [
16            {
17              "role": "lender",
18              "name": "VIEWPOINT BANK",
19              "entity_type": "federal savings bank",
20              "address": "1201 W. 15th St., MSC 210 Plano, Texas 75075"
21            },
22            {
23              "role": "borrower",
24              "name": "RF MONOLITHICS, INC.",
25              "entity_type": "Delaware corporation",
26              "address": "4441 Sigma Road Dallas, Texas 75244"
27            }
28          ],
29          "commitments": [
30            {
31              "facility_type": "single advance",
32              "amount": 900000,
33              "currency": "USD",
34              "availability_period": "one time at closing",
35              "purpose": "Commercial"
36            }
37          ]
38        },
39        "pricing": {
40          "base_interest_rate": {
41            "rate_type": "floating",
42            "benchmark": "Wall Street Journal",
43            "spread_bps": 65,
44            "floor_bps": null,
45            "cap_bps": null,
46            "day_count": null
47          },
48          "additional_interest": {
49            "benchmark": "Prime",
50            "spread_bps": 100,
51            "floor_bps": null,
52            "cap_bps": null
53          }
54        },
55        "repayment": {
56          "maturity": {
57            "final_maturity_date": "2014-04-23",
```

```
 58          "extension_options": null
 59        }
 60      },
 61      "conditions": {
 62        "financial_covenants": [
 63          {
 64            "metric": null,
 65            "requirement": null,
 66            "threshold_value": null,
 67            "test_frequency": null,
 68            "cure_rights": null
 69          }
 70        ],
 71        "negative_covenants": [
 72          {
 73            "restriction_type": "liens",
 74            "description": "Property is free and clear of all liens except those
                   disclosed and consented to by Lender"
 75          },
 76          {
 77            "restriction_type": "use of property",
 78            "description": "No hazardous substances or environmental violations"
 79          }
 80        ],
 81        "events_of_default": [
 82          {
 83            "event_type": "payment default",
 84            "description": "Failure to make full payment when due"
 85          },
 86          {
 87            "event_type": "insolvency",
 88            "description": "Insolvency, bankruptcy, or receivership"
 89          },
 90          {
 91            "event_type": "business termination",
 92            "description": "Merger, dissolution, or termination of business"
 93          }
 94        ]
 95      },
 96      "fees_and_costs": {
 97        "fees": [
 98          {
 99            "fee_type": "none specified",
100            "amount_or_rate": null,
101            "rate_basis": null,
102            "payment_timing": null,
103            "recipient": null
104          }
105        ]
106      },
107      "security_and_guarantees": {
108        "secured": true,
109        "collateral_description": "all property of Borrower",
110        "lien_priority": "first priority",
```

```
111        "perfection_requirements": "filings and control agreements"
112      },
113      "administrative": {
114        "governing_law": "Texas",
115        "jurisdiction": "Texas courts",
116        "amendment_requirements": "written agreement by both parties"
117      }
118    }
119  }
```

3 Syndicated Credit Agreement - Extraction Results

> **Document Metadata**
>
> - **Type**: Credit Agreement
>
> - **Effective Date**: November 17, 1999
>
> - **Model**: gpt-4.1-nano
>
> - **Processing**: 13.6 seconds for 395,249 characters

3.1 Full JSON Output

```
1  {
2    "metadata": {
3      "document_name": "credit-agreement-2",
4      "document_path": "tests/fixtures/credit-agreement-2.txt",
5      "extraction_timestamp": "2025-08-01T19:05:33.743638Z",
6      "model": "gpt-4.1-nano",
7      "processing_time_seconds": 13.613498,
8      "document_length": 395249,
9      "prompt_used": "FINAL_universal_debt_extraction_prompt.md"
10   },
11   "extracted_data": {
12     "document_type": "credit agreement",
13     "effective_date": "1999-11-17",
14     "obligations": {
15       "parties": [
16         {
17           "role": "borrower",
18           "name": "Weekly Reader Corporation",
19           "entity_type": "corporation",
20           "jurisdiction": "Delaware"
21         },
22         {
23           "role": "borrower",
24           "name": "JLC Learning Corporation",
25           "entity_type": "corporation",
26           "jurisdiction": "Delaware"
27         },
28         {
29           "role": "guarantor",
30           "name": "WRC Media Inc.",
31           "entity_type": "corporation",
32           "jurisdiction": "Delaware"
33         },
34         {
35           "role": "lender",
36           "name": "Dlj Capital Funding, Inc.",
37           "entity_type": "corporation"
38         },
39         {
```

```
40          "role": "lender",
41          "name": "Bank of America, N.A.",
42          "entity_type": "bank"
43        },
44        {
45          "role": "administrative agent",
46          "name": "Bank of America, N.A.",
47          "entity_type": "bank"
48        },
49        {
50          "role": "documentation agent",
51          "name": "General Electric Capital Corporation",
52          "entity_type": "corporation"
53        }
54      ],
55      "commitments": [
56        {
57          "facility_type": "revolving credit facility",
58          "amount": 30000000,
59          "currency": "USD",
60          "availability_period": "from effective date to 1999-12-31",
61          "purpose": "working capital and general corporate purposes"
62        },
63        {
64          "facility_type": "term loan",
65          "amount": 31000000,
66          "currency": "USD",
67          "final_maturity_date": "2005-11-17",
68          "purpose": "financing transaction"
69        },
70        {
71          "facility_type": "term loan",
72          "amount": 100000000,
73          "currency": "USD",
74          "final_maturity_date": "2006-11-17",
75          "purpose": "financing transaction"
76        },
77        {
78          "facility_type": "letter of credit",
79          "amount": 5000000,
80          "currency": "USD",
81          "stated_amount": 5000000,
82          "purpose": "support working capital"
83        },
84        {
85          "facility_type": "swing line loan",
86          "amount": 5000000,
87          "currency": "USD",
88          "purpose": "short-term bridge financing"
89        }
90      ]
91    },
92    "pricing": {
93      "base_interest_rate": {
```

```
 94          "rate_type": "floating",
 95          "benchmark": "LIBOR",
 96          "spread_bps": null,
 97          "floor_bps": null,
 98          "cap_bps": null,
 99          "day_count": "Actual/360"
100        },
101        "default_interest_rate": {
102          "rate_type": "floating",
103          "benchmark": "LIBOR",
104          "spread_bps": 200,
105          "floor_bps": null,
106          "cap_bps": null,
107          "day_count": "Actual/360"
108        },
109        "performance_pricing": [
110          {
111            "metric": "leverage_ratio",
112            "pricing_grid": [
113              {
114                "condition": "< 4.00:1.0",
115                "spread_bps": -25
116              },
117              {
118                "condition": "4.00:1.0 to 5.00:1.0",
119                "spread_bps": 0
120              },
121              {
122                "condition": "> 5.00:1.0",
123                "spread_bps": 50
124              }
125            ],
126            "test_frequency": "quarterly"
127          }
128        ],
129        "default_pricing": {
130          "trigger": "event of default",
131          "rate_increase_bps": 200,
132          "application": "automatic upon occurrence"
133        }
134      },
135      "repayment": {
136        "final_maturity_date": "2005-11-17",
137        "scheduled_amortization": [
138          {
139            "date": "2000-09-30",
140            "amount": 387500
141          },
142          {
143            "date": "2001-09-30",
144            "amount": 585000
145          },
146          {
147            "date": "2002-09-30",
```

```
148              "amount": 535000
149            },
150            {
151              "date": "2003-09-30",
152              "amount": 475000
153            },
154            {
155              "date": "2004-09-30",
156              "amount": 400000
157            }
158          ],
159          "mandatory_prepayments": [
160            {
161              "trigger": "cash proceeds from casualty exceeding $250,000 in a
                    fiscal year",
162              "percentage": 1.0
163            },
164            {
165              "trigger": "cash proceeds from net disposition exceeding $250,000 in
                    a fiscal year",
166              "percentage": 1.0
167            },
168            {
169              "trigger": "excess cash flow",
170              "percentage": 0.5
171            }
172          ]
173        },
174        "conditions": {
175          "financial_covenants": [
176            {
177              "metric": "leverage_ratio",
178              "threshold": 6.35,
179              "test_frequency": "quarterly"
180            },
181            {
182              "metric": "fixed_charge_coverage_ratio",
183              "threshold": 1.05,
184              "test_frequency": "quarterly"
185            }
186          ],
187          "default_events": [
188            {
189              "event_type": "payment default",
190              "description": "failure to pay principal or interest when due"
191            },
192            {
193              "event_type": "breach of warranty",
194              "description": "incorrectness of representations or warranties"
195            },
196            {
197              "event_type": "non-performance of covenants",
198              "description": "failure to perform obligations under sections 7.1.1,
                    7.1.7, 7.1.10, 7.2"
```

```
199          },
200          {
201            "event_type": "default on other indebtedness",
202            "description": "default exceeding $5,000,000"
203          },
204          {
205            "event_type": "judgments",
206            "description": "judgments exceeding $5,000,000"
207          },
208          {
209            "event_type": "bankruptcy or insolvency",
210            "description": "bankruptcy, insolvency, or similar proceedings"
211          }
212        ]
213      },
214      "fees_and_costs": {
215        "commitment_fee": {
216          "rate": 0.005,
217          "basis": "unused commitment",
218          "payment_timing": "quarterly in arrears"
219        },
220        "letter_of_credit_fee": {
221          "rate": 0.0025,
222          "basis": "stated amount",
223          "payment_timing": "quarterly in arrears"
224        },
225        "issuance_fee": {
226          "rate": 0.0025,
227          "basis": "stated amount",
228          "payment_timing": "at issuance and extension"
229        }
230      },
231      "security_and_guarantees": {
232        "secured": true,
233        "collateral_description": "all assets of borrowers and subsidiaries",
234        "lien_priority": "first priority",
235        "perfection": "by filings and mortgages"
236      },
237      "administrative": {
238        "governing_law": "New York",
239        "amendment_requirements": "written consent of required lenders",
240        "notices": "to addresses specified in agreement"
241      }
242    }
243 }
```

4 Key Observations

4.1 Successful Standardization

- **Numbers**: All monetary amounts extracted as numeric values (900000, 30000000)

- **Interest Rates**: Converted to basis points (65 bps, 100 bps)

- **Dates**: Standardized to YYYY-MM-DD format (2009-04-13, 1999-11-17)

- **Entities**: Consistent role classification (borrower, lender, guarantor, agent)

4.2 Adaptive Extraction

- **Simple Document**: Sparse arrays with only relevant data populated

- **Complex Document**: Rich nested structures capturing multi-party arrangements

- **No Hallucination**: Empty arrays and null values where data not present

4.3 Production Readiness

The consistent JSON structure across both document types enables:

- Direct database insertion

- Tabular analysis and comparison

- Automated downstream processing

- Portfolio-level aggregation