Its value is based upon the fact that intellectual property rights confer *the right to exclude others from using it to their economic benefit.*

Did you know?
The total intellectual capital held by the US public companies in 2011 was estimated to be between $8.1 to $9.2 trillion (Source- The Value of Intellectual Capital and Intangible Assets in the America Economy by Kevin A Hassett)

Intellectual property is the most valuable property one can own.
- Copyright infringement damages range from *tens to hundreds of millions of dollars*
- Trademark infringement is in the *hundreds of millions of dollars*
- Patent infringement and trade secret misappropriation verdicts total *hundreds of millions of dollars*, and settlements in the *billions of dollars*
# Types of Intellectual Property

<table>
<thead>
<tr>
<th>IP Category</th>
<th>Commercial Ex.</th>
<th>DoD Ex.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trademarks</strong></td>
<td>• Shape of a Coca Cola bottle&lt;br&gt; • University of Tennessee “orange” color</td>
<td>• DoD and military seals, insignias, symbols, and logos</td>
</tr>
<tr>
<td><strong>Patents</strong></td>
<td>• Silver Queen corn&lt;br&gt; • Design of a Nike running shoe&lt;br&gt; • Medications</td>
<td>• Technologies created in DoD laboratories</td>
</tr>
<tr>
<td><strong>Copyrights</strong></td>
<td>• Beatles recordings&lt;br&gt; • <em>Breakfast at Tiffany’s</em> - book by Truman Capote&lt;br&gt; • Andy Warhol’s artwork</td>
<td>• Written materials (e.g., manuals, drawings, guidebooks)&lt;br&gt; • Computer software source code</td>
</tr>
<tr>
<td><strong>Trade Secrets</strong></td>
<td>• Recipe for Coca Cola or KFC chicken&lt;br&gt; • Sales company client list</td>
<td>• Technical data/computer software deliverables submitted under a government contract&lt;br&gt; • Proposals submitted in response to an RFP or submitted in response to a change order&lt;br&gt; • DCAA audit reports&lt;br&gt; • Documents provided by contractors that are NOT deliverables under a government contract that are properly marked “proprietary”</td>
</tr>
</tbody>
</table>

Data rights only pertain to two of these types of intellectual property: **copyrights** and **trade secrets**.
The term **data** is very broad, and comprises a number of sub-types. The figure below depicts a hierarchy of the types of data that are relevant to stakeholders who manage data at an enterprise or project level.
Technical Data Definition

For the purposes of DoD acquisition programs and the acquisition and management of data, technical data is the scope of interest. The term technical data is defined as:

Recorded information (regardless of the form or method of the recording) of a scientific or technical nature (including computer software documentation) relating to supplies procured by an agency. Such term does not include computer software or financial, administrative, cost or pricing, or management data or other information incidental to contract administration.
What is a Technical Data Package (TDP)?

A Technical Data Package is a technical description of an item adequate for supporting an acquisition strategy, production, and engineering & logistics support. (MIL-STD-31000)

The description defines the required design configuration or performance requirements, and procedures required to ensure adequacy of item performance.

It consists of applicable technical data such as drawings, models, associated lists, interface control documents, specifications, standards, performance requirements, quality assurance provisions, software documentation, and packaging details.

A TDP is a collection or assembly of technical data.
Computer Software definition

i. Computer programs that comprise a series of instructions, rules, routines, or statements; regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations; and

ii. Recorded information comprising source code listings, design details, algorithms, processes, flow charts, formulas, and related material that would enable the computer program to be produced, created or compiled.

Computer = anything that runs software (e.g., part of radio, part of missile, etc.)

Firmware is considered software.
F-35 program struggling with IP, data rights not defined in early days

The head of the F-35 program told a panel of industry and government officials this week that the Joint Strike Fighter is "a classic example" of how inadequate initial planning around intellectual property and data rights can hinder a program as it looks to pursue new sustainment or modernization options.

Speaking at a Sept. 7 industry-government technical panel meeting, Lt. Gen. Christopher Bogdan said that early on in the F-35 program, industry -- namely prime contractor Lockheed Martin and its subcontractors -- was given a broad set of requirements and the government was largely "hands off," not wanting to over-regulate or hinder the program’s schedule or cost goals.

"Industry got to make all the trades for engineering and technical items," said Bogdan, who took over leadership of the JSF program four years ago, after it was re-baselined.

Because of that, the program today is struggling to get access to the technical data it needs, particularly as it looks to shift to organic sustainment for some systems and components.

"We’re in a position now on the F-35 program where we have to fight tooth and nail to get what we want," he said.

Bogdan compared some of his current challenges with F-35 data rights to challenges the C-17 program faced when it was shifting from a contractor logistics support sustainment model to more organic, in-house sustainment. The original concept for the program was that it would be "CLS for life," but when that vision became unaffordable and the Air Force sought to take over sustainment of some of the aircraft, it found there was no foundation for IP and data rights.

"There were mighty struggles," Bogdan said. "And I’m experiencing some of that on the F-35."
Lieutenant General Christopher C. Bogdan  
Program Executive Officer  
200 12th St. South, Suite 600  
Arlington, VA 22202  

Mr. Jeff Babione  
Executive Vice President F-35  
Lockheed Martin Aeronautics Company  
PO Box 748, Mail Zone 1879  
Ft. Worth, TX 76101

Dear Mr. Babione,

I am responding to Lockheed Martin’s letter dated 2 November 2015 concerning Lockheed Martin’s changes to company policy on the marking of F-35 information, as set forth in Program Directive (PD) 16, Issue 7 – Marking and Control of F-35 Program Information.

This most recent iteration of PD-16 represents a significant departure from previous versions and includes elements that are inconsistent with the standard Department of Defense Federal Acquisition Regulation Supplement (DFARS) provisions governing noncommercial technical data and computer software. I am concerned that Lockheed Martin’s new policy fails to account for the license rights of the U.S. Government in technical data and computer software pertaining to the F-35 in which the U.S. taxpayers have invested billions of dollars. In addition, the U.S. Government must protect its license rights that have resulted from these investments in order to fulfill our obligations to our International Partners who have similarly invested billions of dollars.

Previously, PD-16 stated that all technical data and computer software generated with U.S. Government funding to which U.S. Government employees have access on an electronic data base, server, or by any other method, should be considered the equivalent of formal contractual delivery as defined in the Federal Acquisition Regulation and not be marked as proprietary. This policy was consistent with clause H-10 of Contract N00019-02-C-3002 for System Development and Demonstration and based on the recognition that the Government and Lockheed Martin would be working together in a closely coupled electronic environment that provided access to technical data and computer software delivered or otherwise furnished for nearly real time use by the Government and its International Partners. The new policy effectively stifles that collaborative environment.

Lockheed Martin’s new policy denotes its intent to mark all F-35 information generated by Lockheed Martin, regardless of the source of funding, as proprietary unless there are specific types of documented contractual delivery requirements. This position is contrary to the rights of
the U.S. Government in noncommercial technical data and computer software and contrary to the spirit and substance of Lockheed Martin’s contracts with the U.S. Government as reflected in the original PD-16 policy. Further, discussions with Lockheed Martin attorneys and contracts personnel suggest that Lockheed Martin now takes the position that technical data and computer software must be a contract deliverable (Contract Data Requirements List or Contract Statement of Work requirement) in order for the U.S. Government to have any license rights as prescribed by the DFARS.

I strongly disagree with Lockheed Martin’s contention that the U.S. Government has no rights in the technical data and computer software pertaining to the F-35 program unless that data or software is a contract deliverable. The DFARS does not condition the Government’s rights on whether or not technical data and/or computer software is a contract deliverable. Rather, the standard DFARS clauses (252.227-7013 & 252.227-7014) included in all F-35 contracts grant royalty-free, world-wide, nonexclusive, irrevocable license rights to technical data and noncommercial computer software as set forth in those respective clauses based primarily upon each party’s funding contributions. When the U.S. Government funds the development of a weapon system like the F-35, the U.S. Government is granted an unrestricted right to use the noncommercial technical data and computer software pertaining to that development. If Lockheed Martin believes that the Government does not have such an unrestricted right, Lockheed Martin may assert restrictions and mark the data/software when the data/software is shared with the Government using the markings authorized by those two clauses, e.g., Limited Rights, Restricted Rights, Government Purpose Rights.

I request that Lockheed Martin brief the F-35 Joint Program Office leadership team including our International Partner National Deputies to explain how Lockheed Martin’s PD-16 will not impact our ability to manage the F-35 program now and in the years to come.

Sincerely,

CHRISTOPHER C. BOGDAN
Lieutenant General, USAF
Program Executive Officer
The Background: LCS begins experiencing cost overruns and schedule delays. The House Arms Service Committee Subcommittee Chair asserts that the program was based upon “flawed strategic planning,” and wants to know what rights the Government owns to ships’ design drawings – because, in his words:

“I have been asking for over two years if our nation owns the rights to the design drawings of the ships so they can bid them out directly to any shipyard with the capability of constructing the vessels. The answer seems to be yes and no...I have got to believe at this point we should know every inch of bar, angle iron, and plate in those ships; every piece of pipe. And every inch of weld ought to be on someone’s CAD. And if it isn’t by now, I would like to hear why.”
IP/Data Rights Issues

Army Patent

Subject: U.S. loses patent suit, loses ammo maker SSM

U.S. loses patent suit, loses ammo maker SSM

Mr. Jeff Babione
Executive Vice President F-35
Lockheed Martin
PO Box 748, Mail Zone 1879
Pt. Worth, TX 76101

Dear Mr. Babione,

I am responding to Lockheed Martin's letter dated 2 November 2015. Your letter claims that the JSF program is facing issues with the Godwin Patent.

This most recent iteration of PD-16 represents a significant departure from previous plans and includes elements that are inconsistent with the standard Department of Acquisition Regulation Supplement (DFARS) provisions governing secret computer and software. I am concerned that Lockheed Martin's interpretation of the Godwin Patent is much narrower than what the Godwin Patent actually says. The Federal Acquisition Regulation (FAR) states that a patent can be considered a government work if it is 'used, stored, or distributed' by the government.

The Godwin Patent was issued on 2 May 2000 and is a 'method for generating and identifying geometric models of a product, method for generating and identifying geometric models of a product, and method for generating and identifying geometric models of a product.' It is not clear from the letter why Lockheed Martin believes that the Godwin Patent is not covered by the JSF program.

JSF

Army Patent

ATLAS

Inside the Air Force - 06/15/2015

In response to industry inquiry... Air Force seeks Japanese for V-22 Osprey on ATLAS project. This Air Force event is under some of the data rights to the United States Air Force's ATLAS V launch vehicle, but also rights to design and production information. Capt. Andrew Pipes had said that the Air Force has had limited data rights for the Atlas V, which allows some use within the government, but does not own design and production rights.

ATLAS

In late April, the company - Aeronautics, Avio RocketDyne, and Schneiter Corp. - sent a letter to Defense Secretary Ash Carter asking whether Atlas V's intellectual property the government owns. The service responded to the companies in June 6, according to Aeronautics. The service refused to discuss the details of the letter by press time (June 18).

The Air Force is in the request for proposals phase of developing a medium engine and launch vehicle to replace the atlas v and its Russian-made RD-180 engine. Aeronautics and Dynetics have expressed interest in developing engines with the RD-180 engine to fly on the Atlas V - a proposal that would require cooperation and access to intellectual property from NASA, USAF, and Lockheed launch consortium, has said it does not want to sell data rights.

Capt. Andrew Pipes had said that the Air Force has not approached USA about selling Atlas V data rights.
I would like now to discuss how we can ensure we get the necessary data and data right licenses using the seven-step data acquisition process as shown above. This process includes IPT/SME, WBS, Data Call, Data Requirement Review Board (DRRB), tailored Contract Data Requirement List (CDRLs), Data Item Description (DIDs), and “pricing tables.” The government has the most influence in data rights prior to any contract being signed and it will be almost impossible to “buy/procure” data rights after the contract has been signed.
For Step 1, IPT of SMEs will review the requirement documentation (ICD & CDD) and acquisition documentation to determine what data is necessary, for what purpose, for how long the data is needed, and to promote competition throughout the life-cycle of the weapon system. (Note, the CDD will turn into the CPD at Milestone C.)
For Step 2, the government engineering team will develop the WBS of the weapon system to the Level 3.
For Step 3, an acquisition data call is a request by the Data Manager for all functional government organizations involved in the program and the specific acquisition. A data call should be issued for each specific acquisition program, and should be one of the first steps in developing the RFP, solicitation, or contract documentation.

The acquisition data call should reach all functional areas that support the material (e.g., engineering, software engineering, integrated logistics support activities, configuration management (CM), test and evaluation, product assurance, safety, human engineering, and training. The responses to the acquisition data call are critical and provide the basis for the user’s data requirements becoming contractual requirements. Those requirements will be consolidated and reviewed at several management levels, any one of which may challenge the need for the data.

Each data call participant should identify the data requirements based on the life-cycle phase of the program, purposes of the contract, and life-cycle program strategies. Data requirements can be specified using a DID and CDRL. Data call participants should refer to the SOW or other requirement documents to determine whether a valid contract requirement supports the proposed data requirement.
For Step 4, I cannot emphasize how important it is for the IPT to identify only what data the program office needs and doesn’t just grab all the data for data stake. A CDRL (DD Form 1423) defines the data requirements as well as the frequency, method, and medium of the data to be delivered under a contract. A key word is “delivery,” as this is the only way to ensure the government does indeed receive the data per the instructions in the CDRL. Tailoring a CDRL is a method used to lessen the requirements specified by the data acquisition document or DID as appropriate to the specific work task in the contract. This lessening or tailoring is encouraged as a way to avoid expense related to unnecessary information gathering or formatting. Tailoring instructions can be specified in Block 16 of the CDRL. DoD 5010.12-M is an excellent reference for step-by-step instructions to complete a CDRL.
Section J is for attachments to the RFP. One of the important attachments from a data deliverable perspective is the Contract Data Requirements Lists (CDRLs), DD Form 1423.
For Step 5, this is another important step to ensure we authenticate and validate RFP, solicitation, and contract data requirements, including the data and corresponding SOW tasking requirements. This step almost always reduces the amount of CDRLs and further tailors each CDRL, which results in a large cost avoidance to the government.

Basically, a DRRB is when each CDRL author presents his/her CDRL(s) to an independent member chairperson vested with decision authority for all DRRB actions. At this meeting each CDRL is review with the DID and SOW, in minute detail to ensure the data is necessary, meets the minimum needs, and is in accordance with the life-cycle needs as established by the AS, LCSP, SEP, TEMP documents. The results of the DRRB should include an agreed upon list of defined data requirements that will go into the RFP.
Step 6 is the key step in this process! From the WBS, and going through a data call and a DRRB, the IPT will then finalize all the tailored CDRLs with the appropriate DIDs for the M3R program. Then we will develop three Data Right Pricing Tables (listed in Data Rights Attachments in Section J of the RFP). Table 1 will list all of the CDRLs for noncommercial technical data, computer software and computer software documentation commercial, with each CDRL mapped to a data rights license. Table 2 will list all of the CDRLs for commercial technical data, computer software and commercial computer software documentation. Table 3 will list all the CDRLs for the Management data (IMS, cost data summary, contract funds status reports, etc.), with each CDRL mapped to a Special Negotiated License Rights.

Therefore, at the end of Step 6 we know the exact data (noncommercial, commercial and management) needed for the entire lifecycle of the M3R program in terms of sustainment, competition, the delivery of the data, and the corresponding data rights license to each CDRL prior to award of any contract. Finally, after we release a draft RFP to all the offerors they know exactly our needs in terms of data and data right licenses. Once the contract is then signed, it will be very difficult for the contractor to make any data right assertions later, because the RFP listed the data rights licenses to each CDRL.
Step 6 continued..

All CDRL Items listed in RFP (exhibit A)

Table 1
Data associated with noncommercial

Table 2
Data associated with commercial

Table 3
Data associated with management

Data Rights Attachment

RFP
Table 1: Rights in Noncommercial Technical Data, Computer Software and Computer Software Documentation

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDRL Number</td>
<td>Data Item Title (DID Title &amp; Name)</td>
<td>Asserted Rights Category</td>
<td>License Price or Estimated Cost</td>
</tr>
<tr>
<td>A001</td>
<td>DI-NDTI-80603A Test Procedures</td>
<td>Unlimited</td>
<td></td>
</tr>
<tr>
<td>A002</td>
<td>DI-XXX</td>
<td>Unlimited</td>
<td></td>
</tr>
<tr>
<td>A003</td>
<td>DI-XXX</td>
<td>Offeror to Complete</td>
<td></td>
</tr>
</tbody>
</table>

PMO fills-in Columns 1-3

Offeror fills-in Column 3 (only “Offeror to Complete”) & Column 4
## Data Acquisition

### Section J - Data Rights Attachment

**Table 2: Rights in Commercial Technical Data, Computer Software and Computer Software Documentation**

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDRL Number</td>
<td>Data Item Number (DID Title &amp; Name)</td>
<td>Vendor Name, Technical Data/Software Application Name/License Number</td>
<td>Quantity (*)</td>
<td>License Price or estimated cost</td>
</tr>
<tr>
<td>PMO fills-in Columns 1-2 if known when preparing RFP</td>
<td>Offeror fills-in all Columns 3-5, when PMO completes Columns 1-2; Offeror fills-in all Columns 1-5 if PMOs doesn’t fill-in Columns 1-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLIN Number</td>
<td>CLIN Noun Description</td>
<td>Vendor Name, Technical Data/Software Application Name/License Number</td>
<td>Quantity (*)</td>
<td>License Price or estimated cost</td>
</tr>
<tr>
<td>PMO fills-in Columns 1-2 if known when preparing RFP</td>
<td>Offeror fills-in all Columns 3-5, when PMO completes Columns 1-2; Offeror fills-in all Columns 1-5 if PMOs doesn’t fill-in Columns 1-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*) N/A for Commercial Technical Data
Table 3 identifies any cost/financial/schedule or contract administration that will deliver to the PMO. This table should contain three columns and rows equal to the number of CDRLs that will contain such data. The PMO fills-in the first and second columns and the offeror will fill-in the third column. Since this data is not covered by the standard FAR or DFARS license terms, the PMO must create a Specifically Negotiated License Rights agreement for this is data and include it with the table or in the RFP. Section L of the RFP will provide detail instructions on how to complete this table.

Table 3: Cost, Financial, Schedule, Contact Administration

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDRL Number</td>
<td>Data Item Number (DID Title &amp; Name)</td>
<td>License Price or Cost</td>
</tr>
<tr>
<td>A020</td>
<td>DI-MGMT-81468 Contractor Funds Status Report</td>
<td>Offeror fills-in Column 3</td>
</tr>
</tbody>
</table>

PMO fills-in Columns 1 & 2
Data Acquisition

Section C - Statement of Work (SOW)

3.2.2.3.1.6 Software Development Design

The Contractor shall prepare and deliver an Interface Design Description in accordance with DHIPSC-81436 (CDRL A029) and a Software Design Description in accordance with DHIPSC-81435 (CDRL A028) for the Preliminary Design Review. Updates to the software and interface design documents shall be presented at the Critical Design Review.

Section J - Contract Data Requirements List (Attachment)

Section J - Data Rights List (Attachment)
Data Delivery

Data Rights Attachment and CDRL Item Delivery

<table>
<thead>
<tr>
<th>CDRL</th>
<th>DID Number</th>
<th>Data Item Title</th>
<th>Asserted Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>A001</td>
<td>DI-MGMT-81458</td>
<td>PRODUCT LIST (DAL)</td>
<td>Special</td>
</tr>
<tr>
<td>A002</td>
<td>DI-MGMT-81458</td>
<td>SUS STATUS REPORT</td>
<td>Special</td>
</tr>
<tr>
<td>A003</td>
<td>DI-CEAN-31174</td>
<td>STATUS ACC. DATA</td>
<td>UL</td>
</tr>
<tr>
<td>A004</td>
<td>DI-CEAN-31174</td>
<td>FREQUENCY ALLOCATION DATA ALLOCATION AND ASSOCIATED DATA</td>
<td>UL</td>
</tr>
<tr>
<td>A005</td>
<td>DI-CESS-310000C</td>
<td>PRODUCT DRAWINGS/MODELS AND ASSOCIATED LISTS</td>
<td>GP</td>
</tr>
<tr>
<td>A005A</td>
<td>DI-CESS-310000C</td>
<td>PRODUCT DRAWINGS/MODELS AND ASSOCIATED LISTS - Subcomponent X</td>
<td>Special</td>
</tr>
<tr>
<td>A005B</td>
<td>DI-CESS-310000C</td>
<td>PRODUCT DRAWINGS/MODELS AND ASSOCIATED LISTS - Subcomponent Y</td>
<td>Special</td>
</tr>
<tr>
<td>A006</td>
<td>DI-MIPSC-81441A</td>
<td>SOFTWARE PRODUCT SPECIFICATION (SPS)</td>
<td>GP</td>
</tr>
<tr>
<td>A007</td>
<td>DI-CESS-8025945</td>
<td>MAINTENANCE TEST AND SUPPORT REQUIREMENT SETMDE</td>
<td>GP</td>
</tr>
<tr>
<td>A008</td>
<td>DI-NRT-40603A</td>
<td>TEST PROCEDURE</td>
<td>UL</td>
</tr>
<tr>
<td>A009</td>
<td>DI-CMAV-80536C</td>
<td>ENGINEERING CHANGE PROPOSAL (ECP)</td>
<td>UL</td>
</tr>
<tr>
<td>A100</td>
<td>DI-FACR-65596</td>
<td>FACILITIES PLAN FACILITY REQUIREMENT PLAN</td>
<td>UL</td>
</tr>
<tr>
<td>A111</td>
<td>DI-MISC-80564</td>
<td>VULNERABILITY ANALYSIS REPORT</td>
<td>GP</td>
</tr>
<tr>
<td>A112</td>
<td>DI-MGMT-80094A</td>
<td>MANAGEMENT PLAN ENGINE LIFE MANAGEMENT PLAN</td>
<td>UL</td>
</tr>
<tr>
<td>A113</td>
<td>DI-ILSS-80095</td>
<td>INTEGRATED LOGISTICS SUPPORT PLAN ILSP</td>
<td>GP</td>
</tr>
</tbody>
</table>
For Step 7, is where we in the Program Office review all the data markings for each data delivered by the CDRL. This includes both digital and printed media. Also, the Data Rights Attachment information provides the program team as easy way to verify the data markings of delivered data is correct. Reason- we have a list of each CDRL, the data right license for each CDRL, and thus when the data (exdrawings) is provided we can easily check for the correct markings for data rights.

Note, for computer software we will need to scan every software line of code to ensure the markings are proper.
Programs must take delivery of all Technical Data and Computer Software (noncommercial & commercial) ordered as part of a contract. There is simply no other way to confirm possession, quality and data rights status of the acquired data. Some acquisition professionals believe having "access" to the data equates to delivery. This is not true! "Delivery" has specific legal definitions requiring a deliverable and binding the originator to the data rights markings and empowering the Government to verify and/or challenge them. "Access" has no such specific legal definition.
Questions

Howard Harris
Howard.Harris@DAU.mil
May 24, 2017